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Reference Pricing in Germany: Implications for U.S. Pharmaceutical Purchasing

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ABSTRACT

ISSUE: The German health care system resembles that of the United States in important ways — it is financed by multiple private payers and relies principally on negotiation rather than regulation to establish prices. New drugs that offer minimal benefits compared with existing alternatives within a therapeutic class are subject to reference pricing; those with incremental benefits are subject to price negotiations. Together, the reference and negotiated pricing systems have held German prices substantially below U.S. equivalents.

GOAL: To describe the German reference-pricing system and compare it to tiered formularies and consumer cost-sharing in the United States.

METHODS: Document review and interviews with leaders in payer, policy, and pharmaceutical industry organizations in Germany.

KEY FINDINGS AND CONCLUSIONS: The German pharmaceutical pricing system uses modest levels of consumer cost-sharing to influence consumers' choices for drugs with therapeutically equivalent alternatives. Manufacturers are free to set the prices of their products, but insurers will not pay more for a new drug than for its comparators unless it offers an additional clinical benefit. For drugs covered by reference pricing, the insurers' payment maximum is set at a level that ensures sufficient choices of low-priced options. These models offer an alternative to the U.S. system of tiered formularies.

TOPLINES

- In Germany, prescription drugs are priced relative to existing therapies for the same medical conditions, with drugs offering extra clinical benefit priced higher.
- New prescription drugs in Germany are subject either to reference pricing or price negotiation; together, these pricing systems have held prices substantially below those in the U.S.

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INTRODUCTION

In reference pricing — a component of health insurance design — a health care purchaser establishes a maximum payment it will contribute toward covering the price of a drug. It is used when there is a wide variation in the prices for therapeutically similar products. The payment limit is set at the minimum, median, or other point along the range of drug prices within a therapeutic class. If a patient's physician prescribes a drug with a price at or below the reference limit, the patient pays only a modest copayment. If a more expensive option is selected, he or she pays the copayment plus the full difference between the reference limit and the price of the chosen product.

Reference pricing offers several advantages over the most commonly used insurance designs in the United States, such as annual deductibles and coinsurance, which expose consumers to financial obligations without providing an affordable option or guidance on how to select products offering the best value. To date, however, reference pricing has been applied only by a limited number of purchasers and only to drug classes that feature multiple generic or therapeutically equivalent alternatives. For these therapeutic classes, it can reasonably be assumed that all products work similarly. Purchasers can limit their payments to the level charged for the cheaper products in each class and patients desiring a higher-priced option reasonably can be required to pay the difference themselves. Patients with physician-identified clinical needs for higher-priced options can be granted an exception.

In its efforts to improve the effectiveness and efficiency of pharmaceutical purchasing, the U.S. can learn from Germany, which manages traditional drugs using reference pricing and novel drugs using comparative-effectiveness pricing. Germany has developed evidence-based methods to assess the clinical benefit of new products, establish reference-based payments for drugs that do not offer incremental benefits over existing products, and negotiate new prices for drugs that do offer incremental benefits.[1] This approach enjoys considerable social legitimacy as a mechanism for ensuring patient access while moderating payer expenditures.

The health care system in Germany resembles that of the U.S. in several important respects yet differs in others. (See box.) Both feature multiple nongovernmental insurers rather than a single governmental payer, favor

The Institutional Framework of Pharmaceutical Pricing in Germany

In Germany, reference pricing falls within an institutional system that features publicly regulated and accountable associations of insurers, physicians, and other stakeholders. Statutory and case law establish the rules governing interactions among these entities, and the Ministry of Health continuously monitors and supports their processes. But the government does not directly assess the comparative clinical benefit of new drugs or negotiate their prices. In this regard, it resembles the U.S. framework more than other European systems where the heavy lifting in pharmaceutical cost control is done directly by governmental payers.

The German institutional framework does differ from its U.S. counterpart in important respects. The organization that assesses the comparative clinical performance of new drugs, the Federal Joint Committee (GBA), consists of representatives of the national insurance, physician, and hospital organizations. Patient advocacy organizations have nonvoting seats on the board. The GBA, in turn, delegates the clinical evaluation of new drugs to a privately governed but publically accountable entity, the Institute for Quality and Efficiency in Health Care (IQWiG). IQWiG bases its evaluations on: dossiers submitted by manufacturers, which include a systematic review of the incremental benefit of the drug; the clinical trials for initial market authorization by the European Medicines Agency, as well as other clinical trials; reports by technology assessment agencies in other nations; and other available evidence. GBA then makes its official assessment of each drug's contribution based on the IQWiG study, further input from the manufacturers, and follow-on testimony at public meetings.

The GBA assessments are used by the umbrella organization of Sickness Funds, the GKV-SV. The GKV-SV works within a statutory and regulatory framework that assigns it special rights and responsibilities, and interprets its role as negotiating the best prices from the point of view of the health system, and not merely that of its constituent insurers.

negotiation over regulation for determining prices, enjoy declining expenditures for many traditional, nonspecialty drugs but face rising expenditures for novel specialty products, and are embedded in a culture that values patient access to even the most expensive treatments. However, in Germany, the clinical assessment of each new drug is centralized and the negotiation of drug prices is done collectively by the umbrella organization of health insurers, rather than by each insurer individually. This issue brief describes the structure of drug assessment and pricing in Germany and its potential applicability to the U.S. market.[2]

ASSESSMENT OF COMPARATIVE EFFECTIVENESS

In the German pharmaceutical system, new drugs are assessed and priced relative to existing treatments for the same conditions. Drugs that offer additional clinical benefits are paid higher prices; reference pricing is applied to new drugs with clinical performance similar to products already on the market. Comparative-effectiveness pricing applies to new products that perform better than their comparators.

All drugs authorized for market access by the European Medicines Agency (EMA) are immediately available after launch for physicians to prescribe and patients to use. The manufacturer unilaterally sets the new drug's price at time of launch and is reimbursed in full at that price for the drug's first year. During this first year, an assessment is conducted of the drug's comparative clinical safety and efficacy by the Federal Joint Committee (GBA), a self-governing but publicly accountable entity representing associations of nongovernmental insurers (also known as "Sickness Funds"), physicians, and hospitals.

The GBA makes several important decisions regarding the assessment of each drug's incremental benefit, with input from the Institute for Quality and Efficiency in Healthcare (IQWiG), the pharmaceutical manufacturer, relevant medical associations, patient advocacy organizations, and other interested entities. First and often most importantly, GBA decides which drug will be used as the comparator against which the new product is to be assessed; a drug treating multiple indications may have multiple comparators. If the new drug is found to offer incremental benefits, its price will be negotiated upwards from the comparator's price, and so the manufacturer has an interest in having the GBA select a high-priced comparator. However, if GBA picks as the comparator a drug with high price but also high efficacy, the new drug faces a more difficult challenge in demonstrating incremental benefit. A finding of no incremental benefit leads to the drug being assigned to a therapeutic class subject to reference pricing. All products are reimbursed at a level based on the lowest prices charged within the class, if it falls within a therapeutic class for which reference prices have been established. If the new drug is found not to offer an incremental benefit but also does not fall into a reference-priced therapeutic class, its price is subject to negotiation with the proviso that the negotiated price not exceed that of its comparator drug.

Second, the GBA chooses the metrics that will assess the new drug's benefit. These metrics may differ from those used by the EMA, the European equivalent of the U.S. Food and Drug Administration (FDA), in its review of the drug for initial market authorization and for which the manufacturer has conducted clinical trials. In some cases, GBA has rejected metrics acceptable to EMA, such as "progression free survival" for cancer drugs, as it deems them not relevant to the patient's quality of life. Progression free survival indicates how many months the patient survives posttreatment without an increase in the size of his or her tumors. This metric is correlated with the more important overall survival metric, which indicates the number of months the patient remains alive posttreatment, but is often not correlated with patient quality of life. In other cases, GBA has required that pharmaceutical firms provide metrics that EMA does not require, principally quality-of-life indicators such as change in pain and nausea.

The GBA delegates the clinical evaluation of the new drug to IQWiG,[3] which considers the portfolio of evidence used for market authorization by EMA plus other studies conducted by the manufacturer. The final assessment of the drug's benefit then is decided by the GBA. Drugs can

be judged by the GBA to offer a major, substantial, minor, positive but nonquantifiable, or no incremental benefit, relative to the comparator treatment. The nonquantifiable benefit is used when the drug is considered likely to offer incremental benefit but lacks sufficient evidence for a confident judgment of the scale. Orphan drugs, which often have no direct comparator and for which the clinical evidence may be based on very small patient samples, usually are awarded a nonquantifiable benefit. The GBA also evaluates the strength of the available evidence (weak, moderate, or strong). The clinical benefit of a drug can be reassessed by GBA in response to changes in the available evidence, sometimes triggering a renegotiation of the price.

Reference Pricing for Products That Do Not Offer Incremental Benefits

If the GBA considers a drug not to offer an incremental benefit over existing treatments, it usually assigns it to one of the therapeutic classes covered by reference pricing. Manufacturers are permitted to set whichever price they feel is appropriate for drugs falling into these classes, but the umbrella organization of health insurers (GKV–SV) establishes a limit to what individual insurers will contribute toward payment. The GKV–SV sets its payment limit near the 30th percentile in the distribution of prices within each therapeutic class, high enough to ensure that patients have more than one choice but low enough to ensure that the payer is not responsible for paying the highest prices within the class. Most generic drugs fall into the reference pricing system. Approximately 34 percent of drugs, 80 percent of prescriptions, and 33 percent of drug spending in Germany is for drugs subject to reference pricing.[4]

Patients must pay out of pocket the difference between the price set by the manufacturer and the reference-based reimbursement limit set by the purchaser organization. Many patients are unwilling to contribute out of pocket and prefer drugs priced below the reference limit and their physicians will prescribe drugs at or below the limit. Of products subject to reference pricing, approximately 84 percent are priced by their manufacturers at or below the reference price limit and therefore not subject to additional cost-sharing.[5] These products make up 92 percent of all prescriptions made for reference-priced drugs. Manufacturers can submit new prices up to twice a month for drugs in the reference pricing system. The umbrella organization of insurance firms is required to update the therapeutic classes every quarter and the payment limits at least annually. Manufacturers are permitted to lower their prices to the reference limit to avoid the otherwise inevitable reduction in sales volume; many do.

For drugs included in the reference pricing system, patients may be required to pay additional copayments, depending on which drug they select in consultation with their physicians. Patients selecting a drug priced above the reference maximum for their class contribute a copayment plus the difference between their drug's price and the reference maximum. These extra copayments do not count toward the patients' annual out-of-pocket cost-sharing maximum. However, the extra copayments are modest, since most of the drugs included in the reference pricing system are older, generic medications with typically low prices. For drugs not included in the reference pricing system, German health insurers require patients to pay the cost-sharing amount only.

Aside from the requirement that patients pay the difference between the reference limit and the full price of a product, which applies only in contexts where the patient can choose a low-priced option, Germany places tight limits on patients' out-of-pocket financial responsibilities. The statutory copayment ranges from a minimum of EUR 5 to a maximum of EUR 10 per prescription, up to an annual out-of-pocket maximum (for all health care services) of 1 percent of gross income for people with chronic diseases and 2 percent for others. Approximately one-quarter of enrollees also have complementary private insurance, which covers these cost-sharing requirements.[6]

Negotiated Pricing for Products That Offer Incremental Benefits

If a new drug is judged by the GBA to offer an incremental benefit over existing treatments, it is referred to the GKV–SV for price negotiations with the manufacturer. The insurer umbrella association uses the GBA's assessment of clinical benefit, as well as the prices of the comparator drug, therapeutically similar medications, and prices charged in other European nations to negotiate a discount off the new drug's launch price.

Some drugs are judged by the GBA not to offer an incremental benefit yet do not fall into an existing reference-priced therapeutic class, as there must be at least three therapeutically equivalent drugs to constitute a class for reference pricing. These drugs also have their prices negotiated between the manufacturer and the insurer association, but with the proviso that the price of the new drug cannot exceed that of the comparator product chosen by the GBA.

If negotiations between the insurer umbrella association and the drug manufacturer do not conclude with a price agreeable to both sides, the drug is referred to arbitration. In this process, a three-person panel selected by the manufacturer, the insurance organization, and the GBA assesses the evidence and renders a decision. Through the end of 2017 one of five (35 of 186) new drugs assessed by the GBA received a final price through arbitration rather than negotiation; for another 24, the negotiating parties reached an agreement after an arbitration process had been initiated.[7]

If a manufacturer cannot obtain an acceptable price either through negotiation or arbitration, it can withdraw its product from the market. Between 2011 and 2017, 148 drugs were subjected to comparative-effectiveness assessment and had their prices negotiated by the insurers and manufacturers. Of these, 29 were removed by the manufacturer from the German market by 2018.[8] For 12 of these, the manufacturer chose to withdraw the product immediately following the results of the GBA evaluation — this is known as "opting out" of the pricing process. In 16 cases, drugs were withdrawn in reaction to the determined price, mainly through arbitration, and one was withdrawn because its manufacturer went bankrupt.[9]

LESSONS FOR THE UNITED STATES

The German system uses modest levels of cost-sharing as an instrument to influence consumer choices for drugs with therapeutically equivalent alternatives. However, it does not apply cost-sharing to new drugs that lack alternatives. Comparative-effectiveness pricing is used for new specialty medications that offer clinical benefits over existing treatments. Manufacturers are free to set the prices of their products, but insurers will not pay more for a new drug than for its comparators unless it offers an additional clinical benefit. For drugs covered by reference pricing, the insurers' payment maximum is set at a level that ensures sufficient choices of low-priced options. These models offer an alternative to the U.S. system of tiered formularies.

In the United States, the level of cost-sharing and the resulting financial burden on patients is high, especially for patients with complex medical conditions. U.S. payers often impose modest copayments on low-cost drugs with many direct substitutes but onerous coinsurance on high-cost drugs with few substitutes. Coinsurance does not point the patient toward the most cost-effective drug choices. In contrast, insurance designs built on reference pricing identify drugs that are priced below the insurer's payment maximum and require only minimal cost-sharing.

NOTES

1. Sophia Schlette and Rainer Hess, *Early Benefit Assessment for Pharmaceuticals in Germany: Lessons for Policymakers* (Commonwealth Fund, Oct. 2013).

2. This issue brief is based on several dozen interviews conducted in May and December 2017 with executives, analysts, and policymakers in Sickness Funds, pharmaceutical associations, the Ministry of Health, GBA, GKV-SV, universities, consulting firms, and nonprofit organizations active in the German health care system.

3. Treatments for orphan conditions are assessed in-house by GBA and are not delegated to IQWiG.

4. Melanie Schröder and Carsten Telschow, "Der GKV-Arzneimittelmarkt 2017: Trends und Marktsegmente," in *Arzneiverordnungs-Report 2018,* ed. Ulrich Schwabe et al. (Springer, 2018).

5. Federal Ministry of Health, *Zuzahlung und Erstattung von Arzneimitteln* (BfG, 2018).

6. Dimitra Panteli et al., "Pharmaceutical Regulation in 15 European Countries: Review 2016," *Health Systems in Transition* 18, no. 5 (2016): i–125.

7. Wolfgang Greiner and Julian Witte, *AMNOG-Report 2018: Nutzenbewertung von Arzneimitteln in Deutschland* (Medhochzwei Verlag GmbH, June 2018).

8. Greiner and Witte, *AMNOG-Report,* 2018.

9. Product withdrawals are often driven by manufacturer fears that accepting a low price in Germany will lead to low prices in other European nations, 16 of which link their prices to those reported in the German market. If a product is withdrawn from the German market, its official price remains the one established unilaterally by the manufacturer at the time of launch. This list price is then used by other nations in international reference pricing comparisons, even if the drug in question is not in fact sold in Germany.

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