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Transparency and Negotiated Prices: The Value of Information in Hospital-Supplier Bargaining

Matthew Grennan, Ashley Swanson

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KEY FINDINGS:

Hospitals that join a pricing database are able to reduce the negotiated prices they pay to medical technology companies. Reductions are concentrated among hospitals previously paying high prices relative to other hospitals and for products purchased in relatively large volumes. Transparency may offer significant savings on medical devices.

THE QUESTION

How does price transparency affect negotiated prices in business-to-business markets? In the first empirical analysis of its kind, LDI Senior Fellows Ashley Swanson and Matthew Grennan estimate how benchmarking information could be useful to hospital buyers in their negotiations with medical technology companies. They explore two mechanisms for possible savings: first, by reducing “asymmetric information” about seller bargaining parameters (that is, not knowing the lowest price a seller would accept); and second, by helping hospitals solve the “agency problem” with their procurement negotiators (that is, allowing hospitals to monitor negotiator performance and restructure financial incentives). Taking coronary stents as their example, the authors look at whether hospitals that join a price benchmarking database, which contains average pricing based on data submitted by member hospitals, can achieve savings in future negotiations with suppliers.

THE FINDINGS

The authors find that price transparency led to lower prices for hospitals in the upper quintile of price for a given product; they saved about \$30 per stent. Furthermore, price reductions were greater for hospitals with the

largest purchase volumes; they saved about \$70 per stent. These price effects are driven by increased likelihood of renegotiation and by larger price decreases when hospitals renegotiate. The findings suggest that benchmarking works by solving the asymmetric information problem and helping hospitals learn about suppliers; its effect on the relationship between hospitals and their negotiators is less clear.

Overall, by obtaining this price information, hospitals were able to achieve 26 percent of the savings that would have occurred if prices were set at the average level. The benchmarking database provided hospitals with information to help them identify high-volume products for which they were paying higher than average prices and could see significant savings in a renegotiation.

THE IMPLICATIONS

Price transparency has been discussed as a way to reduce consumer health expenditures, but these new findings shed light on how transparency can change business-to-business negotiations, which are relatively opaque. The study demonstrates the potential for information transparency to reduce variation in the cost of medical devices across hospitals. The potential savings are significant, since

since hospital supplies have accounted for a quarter of the growth in hospital inpatient costs in recent years.

Policymakers have called for greater transparency in medical technology markets, and intermediaries offering benchmarking data have emerged. The authors focused on coronary stents as an example of the high-tech, high-dollar “physician preference items” at the center of policy discussions regarding health care costs and transparency of device pricing. Hospitals spend about \$2 billion annually on stents (about 2 percent of hospital supply spending). Information transparency could extend to other expensive product categories, such as orthopedics, which see high price variation across facilities.

THE STUDY

The authors analyzed 2009-2014 ECRI Institute data for hospital purchase orders for coronary stents at 508 hospital facilities (16 percent of U.S. hospitals) that perform cardiac catheterization services. The dataset exists because sample hospitals subscribed to a voluntary price-benchmarking database between 2009-14.

The database provided hospitals with access to monthly submissions made by other member hospitals about the prices and quantities of each item they purchased. Upon joining, new member hospitals were asked to submit retrospective price and quantity data for the past 12 months. This allowed the authors to look at the impact of database membership on price and quantity when new products enter the market, comparing hospitals with or without access to the benchmarking information.

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