Systems that use AI to match medications with patients can reduce prescription costs, study reveals
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As a result of rising medication costs, patients often stop following medical treatment plans and fail to get better. Without detailed information, medical practitioners can do little to help.

A recommender system, an emerging tool that uses artificial intelligence (AI) algorithms to identify a medication that matches health care goals with the patient's budget, could help solve the issue on both fronts, according to new research from FIU Business.

In the experiments, medical practitioners were presented with six cases of fictional patients that included patient information and associated medication lists. As doctors prescribed medications, the recommender system showed—in real-time—alternative medications and their corresponding prices.

Researchers analyzed the impact of various cost-aware recommender systems on prescription-choice behavior, including how time constraints on practitioners affect the use of such cost-aware systems and the effect of practitioner experience on the evaluation and adoption of cost-aware recommendations in clinical settings.

"Physician assistants and nurse practitioners always switched to the lower-cost option. Their behavior, however, changed under high time pressure," Bouayad said. "By contrast, physicians, with more experience dealing with time pressure, were not impacted."

Bouayad conducted the research with professors Balaji Padmanabhan of the University of South
Florida and Kaushal Chari of the University of Wisconsin–Milwaukee.


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