Better adherence to diabetes medications means fewer hospitalizations and emergency department visits

Increased adherence to diabetes medications significantly reduces hospitalizations and emergency department (ED) visits for patients with diabetes, reveals a new study. While improving adherence increased drug costs for an individual, the reduction in hospital and ED visits still resulted in a favorable cost offset, note William E. Encinosa, Ph.D. and Didem Bernard, Ph.D., from the Agency for Healthcare Research and Quality (AHRQ).

Along with Avi Dor, Ph.D., from George Washington University, they studied the impact of diabetes medication adherence on hospitalizations and ED visits, controlling for unobservable patient severity of illness. The researchers used a database containing information on 5 million individuals covered by employer-sponsored health insurance. Details were obtained on prescription drug insurance claims, employer health plans, hospitalizations, and ED visits. The final sample consisted of 56,744 individuals with type 2 diabetes, who required oral anti-diabetic medications to manage their condition.

When adherence rates were raised from 50 percent to 100 percent, the hospitalization rate was reduced by 23.3 percent and the rate of ED visits was reduced by 46.2 percent. However, diabetic drug costs also increased substantially from $325 to $1,105 per person. Yet for payers, this resulted in a savings of $1.12 in hospital care for every dollar that was spent on diabetes medications. Cost offsets were increased further when reduced ER costs were taken into consideration, resulting in a total cost savings of $1.14 for every additional dollar spent on medications. Further studies are needed to see if longer periods of adherence may result in additional benefits and cost reductions.

More details are in "Does prescription drug adherence reduce hospitalizations and costs? The case of diabetes," by Drs. Encinosa, Bernard, and Dor, in *Advances in Health Economics and Health Services Research* 22, pp. 151-173, 2010. Reprints (AHRQ Publication No. 11-R008) are available from AHRQ. ■
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