

Case Study

How Cardinal Health validates the impact of new drugs in your hospital

Pharmacy Management

The challenge

The commercial launch of new drugs, occurring on an unpredictable schedule and typically backed by a significant promotional effort by the pharmaceutical company, can have a dramatic impact on costs in the hospital pharmacy. When a new drug's therapeutic results are clearly superior to existing alternatives, the increased costs represent a sound investment in better patient outcomes, actually reducing overall healthcare costs. But when the new alternatives are not superior, or when their characteristics make them beneficial only in certain subsets of patients not thoroughly characterized in early clinical research, hospital drug costs can escalate rapidly without any significant patient benefit.

Xopenex, a beta agonist used for the treatment or prevention of bronchospasm, initially received an enthusiastic response from the medical community, and particularly in the pediatric population, where bronchodilators are used extensively to manage asthma and other respiratory problems. While it was not an especially costly drug, it was typically more than 14 times more expensive per dose than the existing alternative, albuterol.

Background

King's Daughters Medical Center is a 385-bed regional referral center in Kentucky whose pharmacy is operated by the Pharmacy Management business of Cardinal Health. Managing the pharmacy operations of more than 300 hospitals around the country, the company has both the resources and the responsibility to monitor the impact of changing medication utilization on pharmacy costs.

According to Debbie Williams, Director of Pulmonary Services at King's Daughters, "We began hearing about Xopenex overuse, and both our therapists and our pharmacy felt that the drug was being used excessively." This impression was echoed at other hospitals, and the resultant cost increases at client hospitals triggered a clinical initiative at Cardinal Health. The company's Clinical Affairs group commenced an intense effort to examine the scientific literature to determine whether Xopenex's cost was justified by its clinical benefits. Based on a comprehensive review of the scientific literature and clinical experience: it required the same dosing frequency as albuterol; it was not associated with fewer or less-severe side-effects than albuterol, and there was no subset of patients in whom it was more beneficial than albuterol.

(continued on reverse)

The drugs

The existing drug:
Albuterol (various tradenames). Cost - approximately \$0.14/patient day

The new drug:
Levalbuterol HCl (tradename Xopenex). Cost - approximately \$2.00/patient day

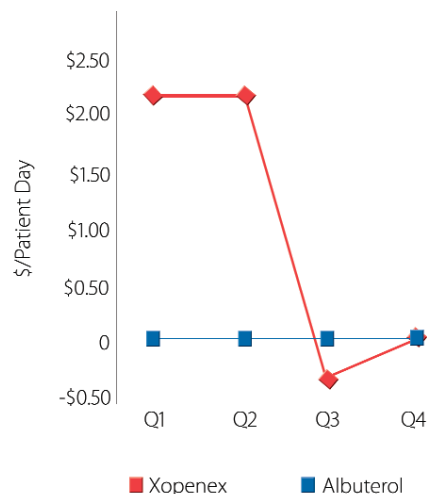
"Working together with Cardinal Health, we became more cost-effective without compromising outcomes."

- Bob Lucas, Vice President of Operations, King's Daughters Medical Center



Xopenex clinical initiative

Impact and cost savings



- Education programs presented Q2
- Issues in ER addressed Q4
- P&T approves auto-sub policy Q4

COG impact: savings of \$200,000 annually

Solution

Based on these findings, Cardinal Health prepared and delivered to King's Daughters and other client hospitals an educational program, including a series of teleconferences and printed materials that presented the data and provided strategic recommendations for how to impact prescribing patterns. This stepwise approach was targeted at 1) determining what Xopenex was being used for, and by whom; 2) communicating both the clinical and financial issues involved, and 3) providing sample strategies to improve bronchodilator use. Specific issues were addressed in the hospital's ER department, and the recommended auto-substitution policy was approved and implemented.

"If you don't have the support of physicians, it's very difficult to change prescribing patterns," says Williams. "We have a very strong pulmonary group, and presenting them with the right data made the job much easier. Our frontline therapists had been seeing the results every day in the hospital, but the in-depth review of the literature was instrumental in effecting the change."

Result

Following the educational initiative, utilization of Xopenex at King's Daughters declined so precipitously in less than three months that the hospital was credited for returned product. The overall resulting savings were estimated at \$200,000 annually.

"Changing physician prescribing patterns demands strong relationships built on trust," notes Bob Lucas, Vice President of Operations at the medical center. "The level of service we've received from Cardinal Health over the past several years, combined with the thoroughness and scientific integrity of the data they presented, meant that our clinicians trusted the information they received. Working together, we became more cost-effective without compromising outcomes."

The Pharmacy Management business of Cardinal Health has more than 35 years of expertise in helping hospitals and health care systems improve both the financial predictability of pharmacies and the quality of patient care. Through clinical utilization, workflow processes and effectively managing pharmaceutical inventories, our experts can improve the pharmacy practice and provide the benchmarks to measure success.

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