

Case Study

Cardinal Health customizes programs to manage hospital-acquired infections

Pharmacy Management

The challenge

The proper management of anti-infective therapy is a continual challenge for today's health care providers. The development of antibiotic-resistant strains of common pathogens forces pharmaceutical research into a difficult search for effective, and often costly, new agents. Efforts to control hospital-acquired infections and achieve higher levels of patient safety place added pressures on today's hospitals. The result of these dynamics is a twofold challenge: delivering high-quality care while controlling drug costs.

Background

Mesa General Hospital is a 130-bed hospital, in Mesa, Arizona, that specializes in cardiac services, providing diagnostic and interventional cardiac catheterization and cardiovascular surgery. A number of factors, including personnel changes and the addition of infectious disease experts, combined to produce a dramatic increase in the hospital's cost of anti-infectives: over the course of several months, the cost climbed to more than \$25.50 per adjusted patient day, more than twice that of similar hospitals.

Solution

Working closely with hospital personnel, the Cardinal Health team built a strong relationship with the medical staff and the P & T Committee, and prepared a plan to help control costs. The Cardinal Health team met on multiple occasions with members of the medical staff and the P&T committee at Mesa General; building a strong relationship was critical in gaining the confidence and credibility for whatever solutions would emerge. The team's goals were to reduce the hospital's high anti-infective cost, establish prudent and scientifically sound practices to prevent antibiotic resistance, and maintain or improve the quality of patient outcomes.

The consensus-based initiative that emerged had a number of key components that were implemented over a six-month period. These new pharmacy initiatives were implemented to improve patient care and safety.

(continued on reverse)

The key issues at Mesa General :

- Formulary update
- Compliance with specific pharmacy interventions
- Physician preference for certain third-generation cephalosporins
- Potential overuse of a number of broad-spectrum antibiotics
- Avoiding bacterial and fungal resistance to anti-infectives

"Cardinal Health helped us to reduce costs while maintaining the quality of care, and we're continuing to rely on them not just for operational issues, but to help us respond strategically to emerging clinical and business challenges."

- Brent Cope, CEO
Mesa General

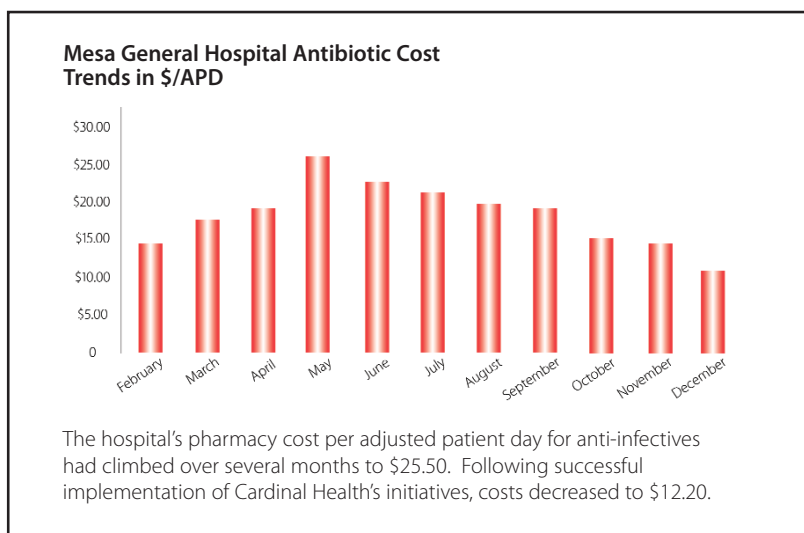


Cardinal Health Solution	Benefit
Automatic IV-to-PO conversion process	Improve patient safety, facilitate earlier discharge, reduce costs
Pharmacy-based renal dosing recommendation program	Protect against adverse affects of excessive drug dosage and reduce costs
Automatic soft-stop on all antibiotic orders	Reduce anti-microbial resistance and adverse drug reaction
Medicare Core Measures compliant pneumonia pathway	Reduce re-admission and re-infection
Automatic therapeutic interchange between two equivalent third-generation cephalosporins	Similar safety profile with lower cost per day of therapy.
Restriction of broad-spectrum antifungals to infectious disease, with prescriptions written only by a specialist	Reduce development of resistant bacterial organisms
Surgical prophylaxis guidelines limiting appropriate antibiotic choices to 24 hours' duration, as recommended in current literature	Meet core measures expectations, reduce development of bacterial resistance and lower costs

Cardinal Health also provided materials and supporting literature. These initiatives had a broad spectrum of benefits, including decreased patient care issues, saving nurses' and physicians' time, decreasing unnecessary drug use, facilitating patient discharge, and reducing overall medication costs. And just as importantly, they remained consistent with delivering high-quality care and protecting patient safety.

Result

Before the completion of the six-month project implementation, drug costs for anti-infectives began a significant decline, reaching a low of \$12.20 per adjusted patient day later that year. Annualized savings for the program were estimated at \$156,000.



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 changes in 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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