

Preventing Surgical Infections: Success Stories

From 2002-2005, QIOs worked with hospitals around the country to improve clinical processes for preventing surgical infections. Compared to similar risk patients undergoing the same surgery, a patient who gets a surgical site infection is twice as likely to die, 5-6 times more likely to require re-admission, and likely to stay in the hospital twice as long. Although administering antibiotics within 60 minutes prior to incision is key to preventing surgical infections, this is done in only about half of major surgeries.

As part of the Surgical Infection Project, QIOs in almost every state brought surgical teams from hospitals together for training sessions aimed at incorporating infection prevention into treatment protocols, with a focus on timely administration of antibiotics.

Some examples of what hospitals and QIOs accomplished:

- In California, 26 hospitals working with the state QIO, Lumetra, increased the proportion of surgical patients receiving antibiotics within one hour of incision from 73.8% to 84.3%.
- In Colorado, 16 hospitals working with the Colorado QIO, Colorado Foundation for Medical Care, increased the proportion of patients receiving antibiotics within one hour of incision from 62% to 88%.
- In Maryland, 16 hospitals working with Delmarva, the QIO for that state increased the proportion of patients receiving antibiotics within one hour of incision from 72% to 91.9%.
- In New Mexico, 19 hospitals working with New Mexico Medical Review Association, the state QIO, increased the proportion of patients receiving antibiotics within one hour of incision from 47.6% to 68%.
- In Texas, 42 hospitals working with Texas Medical Foundation, the state QIO, went from 61% to 84% of surgical patients receiving antibiotics with 60 minutes.
- In Georgia, 9 hospitals doubled the number of cases between surgical infections by working with GFMC, the state QIO.
- Thirteen hospitals working with Kansas Foundation for Medical Care increased from 67% to 85% the proportion of surgical patients receiving prophylactic antibiotic within one hour prior to surgical incision.
- 21 hospitals in southeast Michigan worked with the state QIO, MPRO, to increase antibiotic administration within 60 minutes prior to surgery from 68.6% to 88.2%.

Working with QIOs in their states, individual hospitals often had striking results in efforts to prevent surgical infections.

Some examples:

- Leesburg Regional Medical Center in Florida went from 19.3% to 92% in administration of antibiotics in the hour before incision.
- Glen Cove Hospital in New York went from 43% in July 2003 to 100% in administration of antibiotics in the hour before incision.
- By improving antibiotic administration and timing, Mercy Health Center in Oklahoma performed 400 surgeries without infections, four times its rate before participating in QIO-led training.
- Houston Medical Center of Warner Robins, Ga., increased from 12 percent to 99.1 percent the proportion of surgical patients receiving prophylactic antibiotics within one hour prior to surgical incision.
- As a result of its work with MassPRO, Baystate Medical Center (BMC) has increased its rate of on-time antibiotic administration for its surgical patients by 59%.
- Central Mississippi Medical Center (CMMC) in Jackson, Mississippi improved timing of prophylactic antibiotic administration from 45.2 percent to 97 percent.

The American Health Quality Association is dedicated to improving the safety and effectiveness of health care. AHQA represents the national network of Quality Improvement Organizations (QIOs) that work with hospitals, medical practices, health plans, long-term care facilities, home health agencies, and employers to encourage the spread of best clinical practices and improve systems of care delivery.