How to Keep the Hospital From Making You Sicker

Surgical Infections Become Harder to Treat, Prompting Stepped-Up Prevention Efforts

Shortly after Patricia Henderson Shimm had her hip replaced, the surgical site became infected. It was the start of a three-year nightmare for the New York author and early-childhood educator.

Her doctors gave her intravenous antibiotics and extracted the infected tissue. But eventually they had to remove the artificial joint itself, leaving Mrs. Shimm temporarily wheelchair-bound. After a second hip replacement followed by two years of excruciating pain, Mrs. Shimm only recently started walking without a cane. "They told me this is just one of those things that happens sometimes," she says.

Largely because of mounting resistance to common antibiotics, complications from surgery that were once easily treatable have become increasingly difficult to handle. The consequences are alarming: more post-surgery deaths, amputations, and other severe complications.

Patients who develop surgical-site infections are 60% more likely to spend time in an intensive-care unit, five times more likely to be readmitted to the hospital and twice as likely to die than patients who don't get infections. Such complications also add more than $1 billion annually to the nation's health-care bill, according to federal health analysts.

But many dangerous surgical infections don't have to happen. For the past four years, the government has had in place—and almost every major surgical society has endorsed—simple guidelines to help hospitals and doctors prevent them. Yet, recent studies show that in anywhere from 25% to 50% of surgeries, doctors aren't following the most basic prevention steps, like administering the recommended antibiotics before the operation.

It is a sobering example of how medical care often doesn't adhere to evidence of what works best for patients—and it underscores the need for patients and their families, as well as hospitals themselves, to be more vigilant. Mrs. Shimm wasn't given any antibiotics prior to her surgery. Though the cause of her infection can't be known now, the guidelines clearly state that in joint-replacement surgery, antibiotics before surgery offer the best protection from infection.

Now federal health agencies are trying to bring surgeons and hospitals into line. The Centers for Disease Control, which issued the guidelines in 1999, and the Center for Medicare and Medicaid Services have joined forces in a far-reaching prevention effort. The goal is to cut the number of surgical infections in half by 2005.

There is a "growing recognition that complications are not inevitable," says Julie Gerberding, who became director of Atlanta-based CDC last year. The job now, she says, is to get the medical community "to accept the notion that these infections aren't acceptable."

Each year as many as 780,000 patients may develop an infection from surgery, or about 2.6% of the 30 million operations performed annually. While the overall chances of getting an infection are small, infection rates can be as high as 11% for some operations. The new infection-prevention program will focus on some of the operations with the highest risk, including cardiac surgery as well as coronary artery bypass, colon surgery and joint replacement. Of about 250,000 colorectal surgeries annually, for example, there are about 15,075 surgical infections that result in 11,500 deaths.

Between 40% and 60% of surgical infections are preventable if doctors and hospitals follow the rules in the new prevention program, the health agencies say. The guidelines, available at www.

For some things you can do to reduce the risk of infection from surgery, see page D6.
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Continued From Page D1

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Rubbing in the Drugs

Peter Houck, who is leading the infec-
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In the past, doctors always assumed
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tients to the added risks of taking such
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otics in recent years has rendered many
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used drugs that help fight such infections.

Surgical Checklist
Here are some things patients can do to
reduce their risk of infection from surgery

Before Surgery
- Ask if surgery is absolutely necessary.
- Stop tobacco use at least 30 days before
  surgery
- Ask to keep your preoperative hospital stay as
  short as possible
- Avoid elective surgery if you have an existing
  infection; postpone any surgeries until infection
  is treated and resolved.
- Make sure the surgical site isn’t shaved the
day before; if hair must be removed, request
  that electric clippers be used right before
  operation
- Request an antiseptic bath or shower the night
  before surgery
- Check to see if you’ll get a preventive dose of
  antibiotics an hour before surgery
- Ask that people in the operating room be
  restricted to necessary medical personnel only
- Request that operating staff follow sterilization
  practices—and that no one have artificial
  fingernails or current infections
- Make sure that the operating room will be
  ventilated so that air flows out but not in
  during surgery
- Make sure there are no plans to use
  reprocessed surgical blades, catheters and
  other single-use medical devices

After Surgery
- Make sure your antibiotics are discontinued
  within 24 hours after the operation
- Advise doctor of any fever, weight loss, pain,
  ooze or swelling at site
- For up to two years after the operation, take
  antibiotics after joint surgery or invasive
  procedures such as dental work

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The best approach now, the
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Patients at Higher Risk

Of course, it is impossible to prevent
some surgical infections no matter how
many precautions are taken, and some
patients such as the elderly and diabetics
are at much higher risk. But hospitals
that began participating in the project
last year are already reporting dramatic
results, including those in one group led
by Seattle-based Qualis Health. At Mercy
Health Center in Oklahoma City, the sur-
gical infection rate for cardiac bypass,
orthopedic surgery, colon and hysterecto-
my surgeries was reduced by 78% in
one year.

Gwinnett Hospital System in
Lawrenceville, Ga., performed 402 hyster-
ectomies without a single surgical infec-
tion over nine months and sharply re-
duced infections in other surgical areas
as well. St. Joseph Regional Medical Cen-
ter in Milwaukee cut the infection rates
on Caesarean sections and colorectal sur-
gery by 100% and reduced infection in
cardiac surgeries and vascular surgeries
by 71% and 66% respectively.

A Cleansing Shower

Patients about to undergo surgery
can also take steps to decrease their
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should ask their doctor about the timing
and use of antibiotics and request an anti-
septic bath or shower the night before
surgery, for example.

T. Porcht Dagd, a Georgia neurosur-
geon who heads the peri-operative care
committee of the American College of
Surgeons, notes that hospitals have to
report infection rates, and patients
should always ask if there is a problem
that might impact their surgery.

Medicare’s Dr. Houck adds that pa-
tients shouldn’t be afraid to ask outright
what percentage of patients get infec-
tions—and how many die as a result in a
particular kind of surgery.

“If the surgeon is offended or doesn’t
know the answer I would get a different
surgeon,” he says.
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Please Turn to Page D6, Column 4.
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- Avoid elective surgery if you have an existing infection; postpone any surgeries until infection is treated and resolved.
- Make sure the surgical site isn’t shaved the day before; if hair must be removed, request that electric clippers be used right before operation.
- Request an antiseptic bath or shower the night before surgery.
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- Ask that people in the operating room be restricted to necessary medical personnel only.
- Request that operating staff follow sterilization practices—and that no one have artificial fingernails or current infections.
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- Make sure your antibiotics are discontinued within 24 hours after the operation.
- Advise doctor of any fever, weight loss, pain, oozing or swelling at site.
- For up to two years after the operation, take antibiotics after joint surgery or invasive procedures such as dental work.

That means that if an infection does strike, it may be harder to treat. In the case of artificial and knee replacements, many bacteria have become resistant to the most commonly used antibiotic, methicillin. Consequently, an infection exposes patients to the risk of amputation.

The best approach now, the CDC and others believe, is to have the antibiotics active while the surgery is under way and the wound is open, but to stop the drugs soon afterward in order to prevent side effects and avoid antibiotic resistance.

**Patients at Higher Risk**

Of course, it is impossible to prevent some surgical infections no matter how many precautions are taken, and some patients such as the elderly and diabetics are at much higher risk. But hospitals that began participating in the project last year are already reporting dramatic results, including those in one group led by Seattle-based Qualis Health. At Mercy Health Center in Oklahoma City, the surgical infection rate for cardiac bypass, orthopedic surgery, colon and hysterectomy surgeries was reduced by 78% in one year.

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**A Cleansing Shower**

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T. Forcht Dag, a Georgia neurosurgeon who heads the peri-operative care committee of the American College of Surgeons, notes that hospitals have to report infection rates, and patients should always ask if there is a problem that might impact their surgery.

Medicare’s Dr. Houck adds that patients shouldn’t be afraid to ask outright what percentage of patients get infections—and how many die as a result of a particular kind of surgery. “If the surgeon is killed or doesn’t know the answer I would get a different surgeon,” he says.

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gicalinfectionprevention.org, spell out the recommended timing and types of antibiotics for most major surgeries.

The core measures of good care include: using the recommended antibiotics, starting preventive antibiotics within the hour before making the surgical incision, and discontinuing them within 24 hours of the end of surgery.

Though the program will focus on those three measures, other guidelines include administering oxygen to patients after surgery and keeping patient body temperatures normal. Shaving a surgical site the night before, long standard practice, is now taboo; it causes microrasps in the skin where bacteria can colonize and be driven into the patient’s tissue with the scalpel. Recommended instead: removing hair with clippers or not removing it all and sterilizing the site alone.

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