Pneumonia is the most common infection following heart surgery, a new study shows.

The researchers also revealed that most infections occur about two weeks after an operation -- a week longer than previously thought. They are slated to present their findings Tuesday at the American Heart Association (AHA) annual meeting in Orlando, Fla.

"It's not what we expected to find," study author Dr. Michael Acker, chief of cardiovascular surgery at the University of Pennsylvania Medical Center in Philadelphia, said in an AHA news release.

After examining more than 5,100 heart surgery patients, whose average age was 64, the researchers found a total of 742 infections. Of these, 278 infections were considered serious, including an intestinal infection known as C. difficile colitis, which affected 1 percent of patients. Bloodstream infections occurred in 0.7 percent of the patients, and 0.5 percent of patients had deep-incision surgical site infections. Pneumonia however, was the most common infection, occurring in 2.4 percent of the patients.

The study also revealed that 42 percent of all these major infections occurred after patients left the hospital.

"Half of these patients had no evidence of infection before they were discharged from the hospital," said Acker. "Then they had to return because of the new infection. One implication is that patients must be followed more closely after discharge."

The study authors noted that the most common surgical procedures were isolated coronary artery bypass graft and aortic and mitral valve surgeries. Nearly three-quarters of the operations were elective surgeries -- not emergencies.

The researchers said several risk factors could increase a surgical patient's risk for infection, including congestive heart failure, hypertension, chronic lung disease, using corticosteroids before surgery, how long patients stay in the hospital and how long patients are on cardiopulmonary bypass.

They said the next step is to research differences in care, such as types of surgical dressings, antibiotics and surgical preparations, to investigate which are associated with the lowest risk of infection.

A separate study, of 3,700 patients having cardiac defibrillators implanted, showed that special skin-preparation procedures, including an antibiotic wash and strict drying time, reduced infection rates from 1 percent to 0.24 percent a year after surgery.

Because both studies were presented at a medical meeting, the data and conclusions should be viewed as preliminary until published in a peer-reviewed journal.

More information

The U.S. National Institutes of Health provides more information on pneumonia.