

Many COVID-19 patients given useless antibiotics, study finds

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(HealthDay)—Early in the U.S. coronavirus pandemic, many people

landing in the hospital may have been given unnecessary antibiotics, a new study suggests.

The findings come from one of the hard-hit hospitals in New York City, the initial epicenter of the U.S. pandemic. Researchers there found that of COVID-19 patients admitted between March and May, just over 70% were given antibiotics.

That's despite the fact that COVID-19 is caused by a virus, and very few of those patients actually had a coexisting bacterial [infection](#).

Antibiotics kill bacteria, but are useless against viral infections such as the common cold, the flu and COVID-19.

However, someone with a bad case of COVID-19 has all the symptoms that mark bacterial pneumonia, explained lead researcher Dr. Priya Nori, who specializes in [infectious diseases](#) at Montefiore Medical Center. The hospital is based in the Bronx—a New York City borough that saw a high rate of COVID-19 hospitalizations and deaths in the spring.

"Early on, we didn't have a great handle on the disease yet," Nori said. It wasn't even clear whether COVID-19, by itself, was "enough" to cause such severe symptoms, or whether those patients often had coexisting bacterial infections.

For ER doctors seeing patients who are so sick—and with antibiotics "at their fingertips"—giving the drugs could seem like the right call, Nori explained.

At Montefiore, her team found, that was often the case earlier in the pandemic: Of more than 5,800 COVID-19 patients hospitalized from March through May, 71% received at least one antibiotic dose.

Yet an analysis of patients admitted through April 18 found that fewer than 4% actually had a bacterial or fungal "co-infection."

The findings, published recently in the journal *Infection Control & Hospital Epidemiology*, are based on just one [hospital](#).

But the center is "not an outlier," said Dr. Cornelius Clancy, a spokesperson for the Infectious Diseases Society of America.

He said studies have found a very consistent pattern at some other hospitals—with around 70% of COVID-19 patients getting antibiotics, despite low rates of bacterial infections.

Those numbers are, however, from earlier days. And things are likely different now, according to Clancy, who is also chief of infectious diseases at the VA Pittsburgh Health Care System.

Nori agreed, and said that since the study period, antibiotic use at Montefiore has "reset" to more typical levels.

With this report, Nori said, one goal was to document what happened during the COVID surge. "If it happens again, let's not be so ubiquitous with our antibiotic use," she said.

Beyond that, Nori added, "if hospitals in other states can benefit from this experience, that would be huge for us."

That does not mean COVID-19 patients should never get antibiotics before tests confirm a [bacterial infection](#).

Clancy said that "some empiric use" of the drugs will continue in hospitals. Empiric means based on doctors' clinical experience; in some cases, he said, it is reasonable to give antibiotics to a seriously ill patient

before test results are in.

But if those results turn out to be negative, Clancy added, [antibiotics](#) should be stopped.

The main concern with unnecessary prescribing is that it will feed [antibiotic resistance](#)—where bacteria develop defensive strategies against the drugs that kill them. And in this study, Nori's team found that even in a short time frame, certain bacteria isolated from patients harbored signs of increased resistance.

Antibiotic resistance is already a huge problem in the United States, Clancy said.

Each year, almost 3 million Americans fall ill with antibiotic-resistant infections—and more than 35,000 of them die, according to the U.S. Centers for Disease Control and Prevention.

Now, Clancy said, there is a "major concern" that antibiotic overuse during the pandemic could fuel the problem.

But it's actually antibiotic misuse outside of hospitals that is the bigger threat, he noted.

Many people, Clancy said, want an antibiotic when they are miserably sick—often unaware the drugs cannot kill viruses.

"Don't go to the doctor expecting to get an antibiotic," Clancy said. "If you're diagnosed with COVID-19 and you don't get an antibiotic, your doctor is doing the right thing."

More information: The U.S. Centers for Disease Control and Prevention has more on [antibiotic resistance](#).

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