

## Seacoast Online: Treatment options dwindling

**Seacoast Online:**  
**By Karen Dandurant**

Aug 7, 2016

PORTSMOUTH — Recent news articles indicate that one sexually transmitted disease is becoming increasingly resistant to antibiotic treatments.

In 2006, the Centers for Disease Control and Prevention had five recommended treatment options for gonorrhea — now the United States has only one option remaining.

Gonorrhea is a reportable disease, meaning that the CDC mandates that states track the number of cases they see.

In 2014, the CDC reported 350,062 cases. Seen at a rate of 100,000 people, that represents a 110.7 increase in cases since 2013, or a 5.1 percent rise. The cases were recorded primarily in people ages 15 to 24.

A New Hampshire Department of Health and Human Services report of cases from 2010 to 2014, also shows a rise in the number of cases. In 2014, DHHS investigated 235 cases as a possible outbreak because the number were higher than expected. State officials concluded it did not rise to the level of an outbreak.

Most of the New Hampshire cases reported were in people under the age of 30, with Hillsborough County and, more specifically, Manchester, seeing the highest burden of disease.

By year, other than 2014, New Hampshire cases are as follows: 2010, 146; 2011, 136; 2012, 148; and 2013, 118.

According to the Maine Department of Health and Human Services website, it saw 272 cases in 2010.

The resistance to antibiotics in gonorrhea is just the tip of the iceberg. Antibiotic resistance is proving to be a problem with many infections, and is expected to worsen if pharmaceutical companies do not find alternatives to the drugs already available to the medical community.

“This problem is right in my wheelhouse and, unless we deal with it, we are going to be losing our treatment options for many common infections,” said Dr. David Itkin, an infectious disease expert at Portsmouth Regional Hospital. “The spread of many conditions could be huge if we do not address this. Gonorrhea is a good example of a public health risk with the potential to become an explosive epidemic.”

Dr. Tim Lahey, an infectious disease expert at Dartmouth-Hitchcock Medical Center, said antibiotic resistance in gonorrhea will soon make the condition untreatable.

Dr. Saroj Fleming of Harbour Women’s Health in Portsmouth said physicians have been tracking the growing resistance of gonorrhea to treatment for the past 20 years.

“We have gone through a number of penicillins and tetracyclines,” Saroj said. “We have one treatment left, a combination of ceftriaxone and azithromycin, and we are seeing increasing resistance to that. It is very possible that this condition may be incurable in the future if we do not develop new antibiotics to treat it.”

Fleming said the CDC put in place a surveillance program for gonorrhea cases in the 1980s, already aware this was a serious problem.

“Even in new cases, the genes of this disease have retained the memory of resistance,” Fleming said. “It is a reportable disease, and if we find a person who has been treated appropriately and still is infected, the CDC is studying the genes. In 2014, the reported cases rose by 49 percent.”

“This is one of the earliest indicators of a trend in a post-antibiotic era,” Lahey said. “For decades we have been saying that antibiotics are overused. It is a real and frightening risk, and, in other conditions, the reality is worsening. Conditions like pneumonia, in critical care, post-surgery, is becoming nearly impossible to treat. It frightens me that a condition that was treatable in a healthy person could result in their succumbing to the infection.”

The problem, Lahey said, is that for far too long, antibiotics have been widely over-prescribed. And, when a person is exposed to antibiotics too often, he or she can develop antibiotic resistance.

A common condition like bronchitis will usually resolve itself, Lahey said. “But patients are convinced they need antibiotics because they don’t like the cough, and doctors prescribe them. It is often a viral condition, and antibiotics wouldn’t help anyway. This has been a neglected piece of information we have known about, but now it is reaching a critical proportion.”

Another piece of the puzzle is that creating new alternatives to antibiotic is not profitable for pharmaceutical companies.

“An infection is unlike a condition like hypertension or acid reflux, where medication is probably needed for the rest of a person’s life,” Lahey said. “So antibiotics are less profitable, and there is not a lot of incentive there. They feel they will lose money.”

Itkin said it will cost a pharmaceutical company billions to bring a new product to the market.

“They have to develop the drug, do clinical studies and clinical trials before it can be introduced,” Itkin said. “The Food and Drug Administration sets the bar really high. A new drug is many years in the development. An antibiotic is not the cash cow a new chemo drug, for example, is. Incentives are needed to help with the economic issue because the rates of development have not kept up with the growing rates of resistance.”

Lahey said many conditions and surgeries are possible to do without antibiotics. Some, like tuberculosis, MRSA, gonorrhea and staph infections require them, but they are becoming increasingly resistant.

“We can’t take this for granted,” Lahey said. “Some of these treatable diseases are going to start killing people.”

Another source of antibiotic resistance comes from food. Lahey said produce and livestock are treated with antibiotics, and when we ingest them, it adds to the resistance problem.

“There is a requirement to use antibiotics in order to keep livestock in really close quarters,” Lahey said. “Thousands of animals are kept in tight stalls and are fed really high doses of antibiotics they really wouldn’t need if the conditions were different. There has been legislation introduced to restrict the use of antibiotics on farms, but it has been shot down or the bills have teeth removed, making it ineffective.”

People can help. Lahey said they can write to their congressmen and tell them they are frightened by this.

“We can also be good stewards,” Lahey said. “Question your doctor. Ask if you really need an antibiotic.”

Fleming said the CDC has an ongoing major initiative focusing on antibiotic resistance. She said the United Kingdom has had a similar program going and is seeing some success.

“This is a global problem, however, and unless we get everyone on board, antibiotic resistance will only get worse,” Fleming said.

As for gonorrhea, Lahey said people who are sexually active should take precautions to avoid a disease that promises to get worse.

“Use protection to reduce the likelihood of contracting a sexually transmitted disease,” Lahey said.

Gonorrhea is not a benign infection, Fleming said. She said anyone diagnosed with gonorrhea is required by law to inform partners, and doctors can prescribe treatment for the affected person and their partners.

“It can result in infertility and meningitis,” Fleming said. “Some people exhibit symptoms and seek treatment. Others have no symptoms and can be spreading the disease without any knowledge of it.”

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