

Investigators searching for links among meningitis victims

April 25 2009, By Fred Tasker

"Patient Zero," the first victim to come down with the rare strain of meningitis that has killed four and infected eight others in South Florida since December, was a South Florida resident who was sickened in December but has since recovered, health department officials said Friday.

Citing medical privacy laws, officials won't identify the person any more closely. But investigators now are trying to find links among the victims.

"We've looked at where they ate, where they shopped, where they socialized, their personal habits. We haven't uncovered the link yet," said Dr. Vincent Conte, senior physician for the Miami-Dade Health Department.

But since the W135 strain is so rare, health officials believe there is some connection by which it was passed on from Patient Zero to the other 11 victims.

"Based on epidemiological principles, to see this many W135s -- the strain of [meningitis](#) -- in such a short period of time, all identical biologically, it points to a common thread," Conte said.

The W135, which accounts for about 3 percent of all meningitis [strains](#), can kill within hours of symptoms. Anyone experiencing severe headache, fever, nausea, vomiting and a stiff neck should see a doctor immediately, health officials warned.

Local and state epidemiologists now working the case don't know where Patient Zero caught it. He or she hadn't traveled outside the United States recently -- not even outside South Florida, Conte said.

Neither had any of the other victims except for one dead patient who was a British tourist identified by family and U.K. newspapers as Jade Thomas, 26.

Among the South Florida cases:

- Eight were female.
- Seven were white Hispanic, four were black non-Hispanic and one was white non-Hispanic.
- Of those who died, two were 20 to 30 and two were older than 50.
- Ages of the victims included one infant, four between the ages of 50 and 70, and three over 70.

That puzzles health officials, because they say meningitis cases usually are late teenagers or early adults. Miami-Dade health officials have sent official advisories to 7,000 physicians and 32 hospitals in South Florida, asking them to report immediately any new meningitis cases and to submit samples from such cases to the state laboratory near Jackson Memorial Hospital.

Staff from the U.S. Centers for Disease Control and Prevention are monitoring the situation, but probably will not send help to South Florida unless the cases reach epidemic proportions. That would require 250 cases, Conte said, based on a proportion of the Miami-Dade population of 2.9 million.

"If we get more cases, they will become more active."

Health officials in Broward are also working closely with the Miami-Dade office, said spokeswoman Candy Sims. "We're in contact with them every day," she said.

No special vaccination programs are planned now in public schools, Conte said.

"Schools have comprehensive health division monitors. If they get sick kids, the principals will notify us immediately. There is a heightened sense of surveillance all around. They're calling schools to make sure there are no kids who aren't reported."

One problem is that South Florida schools have some of the state's lowest rates of compliance, even for vaccinations required to enter school _ including those against Hib meningitis, polio, measles, mumps, rubella, tetanus, diphtheria, pertussis and chicken pox. None of those shots, including the one for Hib meningitis, protects against the W135 meningitis bacteria.

For the 2007-08 school year, the most recent data available, overall vaccination rates in Miami-Dade were 90.8 percent for kindergarten and 83.5 percent for seventh-graders. In Broward it was 90.9 percent for kindergarten and 91.8 percent for seventh grade.

The MCV4 vaccination that protects against the W135 strain of meningitis is recommended by the CDC and by many doctors for youths 11 and 12 going into middle school, but not required for entrance to schools.

Because of that, Conte estimated the rate of MCV4 vaccination in local schools at no more than 50 or 60 percent. That's far below the 90 percent

vaccination rate needed to create "herd immunity," in which the proportion of students vaccinated keeps the illness at a low enough level that unvaccinated students are unlikely to catch it.

Broward schools also are in a watchful waiting mode.

"They have issued no advisories," said Keith Bromery, a spokesman for the Broward School District. "We're in constant contact with them."

Miami-Dade health officials also are tapping into their "ESSENCE" program of electronic surveillance at 18 of the biggest of the 32 local hospitals.

"Every patient who shows up in any emergency room is entered into this system, and they analyze every one of them. If they see trends or cases of meningitis or something similar, they call us.

Bigger hospitals also have "infection control investigators" _ nurses, usually, who monitor all admissions for signs of meningitis, he said.

So far, however, no hospital or private physician has reported anything significant.

"We have no new cases," Conte said. "We're just in a surveillance mode awaiting anything new that pops up."

See also: Experts baffled by deadly outbreak of meningitis --
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