



Deadly Antibiotic-Resistant Superbug Spreads in Southern California

By Katie Moisse , ABC News Medical Unit

An antibiotic-resistant superbug once thought to be rare is spreading through health-care facilities in Southern California, health officials say. Roughly 350 cases of carbapenem-resistant *Klebsiella pneumoniae*, or CRKP, were reported in Los Angeles County between June and December of 2010, according to a study from the L.A. County Department of Public Health to be presented April 3 in Dallas at the annual meeting of the Society for Healthcare Epidemiology of America.

"These patients tend to be elderly, they are commonly on ventilators and they often stay at the facility for an extended period of time," Dr. Dawn Terashita, medical epidemiologist and lead author of the study, said in a statement. CRKP joins other superbugs such as methicillin-resistant *Staphylococcus aureus*, or MRSA, in a league of bacteria that outwits typical antibiotics. "We develop new drugs to defeat the infections and germs change to get around those drugs and this is one of those cases," Dr. Richard Besser, ABC News chief health and medical editor, said today in an interview on ABC News' "Good Morning America."

Besser is a former acting director of the Centers for Disease Control and Prevention in Atlanta. "It's like an arms race and in many ways the germs are winning," he said. CRKP is not new to California, or the rest of the country for that matter. The CDC has been tracking it across 35 states since 2009.

It is young, however, compared to MRSA, according to Dr. Arjun Srinivasan, associate director of the CDC's health care-associated, infection-prevention programs. "But in terms of mortality and morbidity, it's very, very serious," Srinivasan said. "These infections are more difficult to treat than MRSA." CRKP is an enterobacterium like salmonella and *E. coli*. It is unclear how many cases of the 350 reported by Terashita and colleagues were fatal. It is also unclear whether the infections stemmed from improper care at long term-care facilities or the frailty of the patients they serve. But Terashita said infected patients tended to have health problems that often resulted in antibiotic use, which might have made them more susceptible. "All of these factors contribute to a greater risk for health care-acquired infections," she said.

Besser said, "This superbug is very dangerous. It tends to affect people that are in the hospital for long periods of time; people that have underlying medical problems; people who have been in nursing homes." Although healthy people in the general public are not at risk for infection, they could transmit the bacteria to sick loved ones.

"As a loved one of someone that is in the hospital, you have to be vigilant when you're sitting there with your relative and anyone comes in and wants to touch your relative without washing their hands," Besser said. "You have to say something. ... It does come down to simple things like that, making sure no one is giving a germ to someone you care about."

Health-care workers should be equally vigilant, Besser said. "A lot of it comes down to hospitals," he said. "They need to make sure that health-care workers aren't spreading it from patient to patient. That's mainly what takes place. Preventing the spread of CRKP is key because the infections are so difficult to treat, the CDC's Srinivasan said. The "mainstay treatment," colistin, is an older generation antibiotic with toxic side effects. And newer, more effective treatment options are unlikely to be developed any time soon.

Kangen 2.5 pH Strong Acidic Water

(Strong Electrolyte Acid Water)

Germ Elimination Comparison

Organism	Effective Produce	Acid Water pH 2.6	Strong Electrolyte Acid Water pH 2.6 [i.e., Kangen Water®]	Neutral Water pH 6.5	Sodium Hypochlorite	Benzalconium Chloride
Hepatitis B Virus	Hepatitis	No live organism detected within 30 sec.	No live organism detected within 30 sec.	110 seconds	Not killed	Not killed
Tubercles Bacillus	Tuberculosis		No live organism detected within 30 sec.			
AIDS Virus	AIDS		No live organism detected within 30 sec.			
Bacillus Subtilis	Gram-positive bacteria commonly found in soil					
Staphylococcus	Gram-positive bacteria Causes skin infections and food poisoning	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.	Not killed	No live organism detected within 30 sec.
Salmonella	Gram-negative bacteria Causes typhoid & paratyphoid fever and foodborn illness	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.
Bacillus Cereus	Soil-dwelling Gram-positive bacteria	Not killed	2 minutes	Not killed	Not killed	No live organism detected within 30 sec.
Methicillin-resistant Staphylococcus aureus (MRSA)	Causes skin infections, sepsis, toxic shock syndrome, necrotizing pneumonia, etc.	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.
Entinitis Vibrio	Food poisoning	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.	No live organism detected within 30 sec.
Typhoid Bacillus	Typhoid fever		No live organism detected within 30 sec.	No live organism detected within 30 sec.		
Candida Albicans	Fungus that causes infections of the mucosal membranes, such as oral thrush and yeast	Not killed	No live organism detected within 30 sec.		5 Minutes	5 Minutes
Pneumobacillus	Pneumonia		No live organism detected within 30 sec.			
Mold	Fungus that can cause allergic reactions and respiratory problems	No live organism detected within 30 sec.	No live organism detected within 30 sec.		5 Minutes	10 Minutes
Red Yeast (Rhodotorula)	Fungus found in homes & bdgs Causes respiratory allergies	Not killed	No live organism detected within 30 sec.		2 Minutes	
Tinea Pedis (Athlete's Foot)	Fungal infection of the skin causing scaling, flaking and itching	Not killed	No live organism detected within 30 sec.	5 minutes	5 Minutes	
Streptococcus Pyogenes (i.e, Step Throat)	Gram positive bacteria causing illnesses ranging from skin infections systemic diseases		No live organism detected within 30 sec.	No live organism detected within 30 sec.		
Enterococcus	Gram positive bacteria causing infections such as diverticulitis, meningitis & UTI's		No live organism detected within 30 sec.	No live organism detected within 30 sec.		
E. coli (0 - 157, etc)	Gram negative bacteria causing food poisoning		No live organism detected within 30 sec.			