

Hospital care for infections may lead to sepsis

A study of 11,000 people showed that treatment at a hospital for any infection may increase the odds of a significant response from the body by 30 percent.

A new study has found that treatment for any kind of infection at a hospital could leave patients up to 30 percent more likely to develop sepsis.

ANN ARBOR, Michigan, June 1, 2015 (UPI) -- Although the hospital is generally thought of as a place for healing, new research shows that treatment for nearly any type of infection at a hospital may increase the chance of sepsis, a body-wide, catastrophic response to dealing with infection.

Researchers at the University of Michigan reviewed data and follow-up treatment for 11,000 older Americans between 1998 and 2010, which includes information about roughly 43,000 hospital stays during that 12 year period, finding that the chance of sepsis was three times greater in the 90 days after leaving the hospital, 30 percent greater for those who were treated for an infection of some type, and 70 percent greater if patients had a particular gut infection called *Clostridium difficile*.

"What is really new here is that we studied dysbiosis -- disruption of the microbiome -- on the population level rather than on the level of the individual patient," said Robert Dickson, M.D., a critical care physician and microbiome researcher at the University of Michigan, in a press release. "Virtually all sepsis research to date has focused on only the host or the pathogen. This paper raises the possibility that we've been ignoring a key third factor: the microbial communities living on and in our vulnerable patients."

The microbiome is the collective group of microorganisms which live in the human body and play a large role in how the body functions.

"While more work is needed to explore this further, it also opens the possibility that we might be able to prevent sepsis—by doing something as simple as helping the microbiome recover rapidly from a hospitalization," said lead author Hallie Prescott, M.D., M.Sc., a University of Michigan critical care physician and health care researcher.

The study is published in the American Journal of Respiratory and Critical Care Medicine.