Could an Apple a Day Keep Sepsis Away?

Scientist Granted over $138,000 to Explore Vitamin C Therapy in Sepsis

LONDON, ON – Sepsis kills more people than breast, colorectal, pancreatic, and prostate cancers combined. Outside of coronary care units, it is the leading cause of mortality in intensive care units. Every year 18 million people worldwide develop this potentially fatal disease. Thanks to a generous grant of $138,238.65 from the Jesse and Julie Rasch Foundation, Lawson Health Research Institute’s Dr. Michael Sharpe is exploring a new sepsis therapy using Vitamin C.

Patients with sepsis develop a full-body infection that “plugs” their capillaries, deprives their tissues of oxygen, and compromises circulation to their organs. Ultimately, this starves the organs of important nutrients, causing them to become dysfunctional and eventually fail. Research shows patients developing sepsis could be particularly prone to infection due to coinciding Vitamin C deficiencies. By replenishing these levels to normal, Dr. Sharpe believes organ dysfunction could be moderated and outcomes could be improved.

To determine whether or not patients with sepsis could benefit from Vitamin C therapy, Dr. Sharpe has planned a two-phase study. The first phase will determine the optimal Vitamin C dosing schedule to replenish the losses in serum and white blood cells. The second phase will consist of a pilot study testing the therapy in a small group of septic patients. Based on the results, Dr. Sharpe hopes to justify a larger, multi-centered clinical trial in collaboration with the Canadian Critical Care Trials Group that will demonstrate a statistically relevant reduction in mortality.

“The origin of this project came from the important findings using animal models of sepsis by Drs. Chris Ellis and Karl Tyml at Lawson and The University of Western Ontario,” Dr. Sharpe says. “They demonstrated the potential benefit of Vitamin C administration as a novel therapy for sepsis.” Dr. Sharpe will continue to collaborate with Drs. Ellis and Tyml to further understand the mechanisms causing this benefit.

Dr. Sharpe is an Associate Scientist at Lawson, and a physician in the Program in Critical Care at London Health Sciences Centre’s University Hospital. He is also a professor in the Department of Anesthesia and Perioperative Medicine, and the Department of Medicine, at the Schulich School of Medicine & Dentistry at Western.
The research institute of London Health Sciences Centre and St. Joseph's Health Care, London.

**Lawson Health Research Institute.** As the research institute of London Health Sciences Centre and St. Joseph's Health Care, London, and working in partnership with The University of Western Ontario, Lawson Health Research Institute is committed to furthering scientific knowledge to advance health care around the world. [www.lawsonresearch.com](http://www.lawsonresearch.com)

**Jesse & Julie Rasch Foundation.** Established in the year 2000 by Jesse Rasch, the Jesse & Julie Rasch Foundation is based in Toronto, Canada. Among the objectives of the Foundation is the funding of medical research as well as research into the role of health and nutrition in the prevention and treatment of disease. The Foundation is also striving to educate the public on the enormous role that health and nutrition play in disease prevention. [www.raschfoundation.org](http://www.raschfoundation.org)

**For more information, please contact:**

Sonya Gilpin  
Communications & Public Relations  
Lawson Health Research Institute  
519-685-8500 ext. 75852  
sonya.gilpin@lawsonresearch.com  
[www.lawsonresearch.com](http://www.lawsonresearch.com)