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## Promising New Sepsis Treatment on the Horizon



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A promising new drug for sepsis will have its first clinical trials thanks to a new grant from the [British Heart Foundation](#). The new drug, called L-257, has been shown to improve survival and reduce organ failure during sepsis in animal models.

The BHF Translational Award was granted to Dr. James Leiper and his clinical collaborator Dr. Simon Lambden at the Medical Research Council Clinical Sciences Centre (MRC CSC). It will cover the costs of further studies to find different forms of a drug candidate the Centre is developing to treat the dangerous effects of sepsis. One of these new forms could then be taken into clinical trials.

Early funding for the research, awarded back in 2002, also came from the BHF. This funding supported the laboratory animal research where the discovery was made of the potential of L-257. The drug works by reducing the production of the chemical nitric oxide. Healthy amounts of nitric oxide are needed for the normal function of blood vessels. However, during sepsis high nitric oxide levels can cause dangerously low blood pressure and ultimately organ failure.

Based on lab test results, the researchers are confident L-257 will be safe and effective at treating sepsis in people. "After over a decade of hard work in the lab, it's exciting to see this promising drug is getting closer to helping thousands of people a year," says Dr. Leiper, who is leading this new BHF-funded research at the MRC CSC.

See Also: [Algorithm Helps Predict Patients' Deadly Sepsis](#)

In the UK, each year more than 100,000 people are admitted to hospital due to sepsis, a life-threatening condition caused by an infection. However, over a third (around 37,000) of those people die. Antibiotics can effectively treat the infection, but the body's response to the infection can cause dangerously low blood pressure, organ failure and death. An effective treatment for this aspect of sepsis is urgently needed and many drugs have already failed to make it through clinical trials.

"Developing treatments for sepsis has been called the 'graveyard for pharmaceutical companies' because people with sepsis are often in a highly unstable condition. This can make it very difficult to detect whether a treatment is working," Dr. Leiper explains. "Therefore clinical trials for sepsis treatments often end up being very large and very expensive. But with the BHF's support we should be able to reduce these risks, and make L-257 a very attractive product for taking into clinical trials."

According to Professor Peter Weissberg, Medical Director at the British Heart Foundation: "It's not realistic for charities to take on the costs and risk associated with taking a new drug or test through clinical trials. But we can help make lab research, like Dr. Leiper's which we've funded over many years, attractive enough for pharmaceutical companies to take on that risk and cost."

Source and image credit: [MRC Clinical Sciences Centre, Imperial College London](#)

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