Small volume resuscitation and supplementation with 20% albumin in patients with septic shock (The SWIPE 2 study)

Plain language summary

Background to this research

Sepsis is the most severe type of infection. When a patient’s immune system is trying to fight an infection, it can cause damage or even failure to vital organs such as the heart, lungs and kidneys. It is a life-threatening condition and even with prompt treatment as many as 1 in 4 patients with sepsis will die. Septic shock is a term used to describe the worst form of sepsis, where patients need life-supporting treatments in intensive care.

Guidelines recommend doctors give fluid to patients with sepsis. This aims to improve blood flow to vital organs and prevent further damage. However, giving patients too much fluid may cause harm such as kidney failure or even death.

Human albumin solution is a type of fluid, made from blood donated by healthy volunteers. Albumin has been used safely for many years, but is more expensive compared to other fluids. Alternative fluids include solutions of salts and water that closely match the contents of human blood. Some research suggests patients with sepsis might benefit albumin, particularly those with septic shock, but doctors remain unsure on whether it will truly help patients with sepsis, or whether the additional expense is acceptable.

The overall aims of this research

The aim of this research is to find new information on whether giving albumin to patients with septic shock is better than salt solutions. We will also explore the financial costs of using albumin and whether they can be justified for patients treated in the NHS.

What will happen in this research?

The project will begin with talking to patients who have previously suffered with sepsis, their relatives and other members of the public to understand their views on this topic. Their
opinions will be used to design a study and attempt to answer the questions they feel are most important.

We will then conduct a study in patients who are admitted to intensive care with septic shock. Patients will be randomly divided into two groups. One group will receive albumin and the other standard salt solutions. Participating patients will provide blood and urine samples shortly after their arrival in intensive care and also 2 and 5 days later. All other aspects of care and treatment will remain the same. Patients will be observed and followed up to see how they are 3 months after entering the study. Taking part in this research is voluntary and patients can change their mind and withdraw from the study at any time.

What will happen with the results?

The findings of this research will be published in a medical journal and presented at meetings where other doctors can hear of our work. Every participating patient will receive a written summary of the study results. Most importantly, the results of this study will help us better understand how albumin may be used cost-effectively in patients with sepsis in the NHS.