

# Routine low-dose continuous or nocturnal oxygen for people with acute stroke: three-arm Stroke Oxygen Supplementation RCT

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## Plain English summary

### The Stroke Oxygen Study (SO<sub>2</sub>S)

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## Plain English summary

**A**lmost one in every six patients dies within the first month of a stroke in the UK. Those who survive are often left with disability and rely on other people to help them with their day-to-day activities. Doctors are still trying to find ways of reducing this level of death and disability. During and after a stroke, blood supply to part of the brain is reduced, leading to a lack of oxygen. This study has looked at whether or not giving patients oxygen soon after their stroke can prevent further brain damage and reduce death and disability.

We recruited 8003 patients from 136 hospitals in the UK. Patients included in the study were randomly assigned to one of three treatment groups: (1) oxygen given continuously for 3 days after their stroke; (2) oxygen given for three nights; or (3) no oxygen, unless it was needed for other reasons. The hospital staff then reviewed the patients' brain function after a week. Patients were sent questionnaires in the post at 3, 6 and 12 months to see how they were doing.

The results have shown that giving oxygen to stroke patients increased the level of oxygen in the blood, but did not improve patients' brain function, level of disability, quality of life or chances of survival. Oxygen treatment did not improve recovery from the stroke.

This means that it is not necessary to give patients oxygen routinely after a stroke unless needed for other reasons.

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