

This study looked at whether it is practical to identify obstructive sleep apnoea (a condition in which breathing repeatedly stops and starts during sleep) in people whose high blood pressure remains difficult to control despite taking blood pressure medicines. It also examined whether these patients would be willing and able to use supplemental oxygen during sleep as a possible treatment.

Fifteen people joined the study, and 13 completed the sleep assessments. Almost half (6 out of 13 participants, 46%) were found to have moderate to severe obstructive sleep apnoea. This showed that screening for obstructive sleep apnoea in people with difficult-to-control high blood pressure is practical and identifies many people with previously unrecognised sleep apnoea.

Four of six eligible participants went on to use supplemental oxygen at night for two weeks, with two participants stopping the study before this stage. Furthermore, only two participants used the oxygen for the planned amount of at least six hours each night. This meant that only two of the six participants who were eligible for oxygen used this treatment. Although oxygen treatment improved blood oxygen levels during sleep, it did not show consistent improvements in blood pressure, daytime sleepiness or quality of life in this small study.

Overall, the study found that identifying obstructive sleep apnoea in this patient group is feasible, but using supplemental oxygen as a treatment was less practical because many participants did not continue with, or use, the treatment for long enough. Larger studies of this treatment are therefore unlikely to be practical without ways to improve treatment use.