

Pharmacological and non-pharmacological treatments and outcomes for new-onset atrial fibrillation in ICU patients: the CAFE scoping review and database analyses

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Plain English summary

The CAFE scoping review and database analyses

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Background

Atrial fibrillation can cause heart failure and stroke. It can also affect heart rate in different ways. It is common for patients admitted to intensive care units to develop atrial fibrillation. When patients have never had atrial fibrillation before, this is called 'new-onset atrial fibrillation'.

We do not know how new-onset atrial fibrillation in patients treated in an intensive care unit affects heart rate and blood pressure, what the best treatments are or how treatments affect how people recover.

Methods

We looked at studies of new-onset atrial fibrillation treatments in intensive care units to see if some treatments have been shown to work better.

We used a national database to see what happens to intensive care unit patients in the UK who develop new-onset atrial fibrillation. We also used two databases from intensive care units in the UK and the USA to see how many patients in the intensive care units have new-onset atrial fibrillation, how atrial fibrillation affects heart rate and blood pressure, and whether or not some treatments work better than others.

Results

Between 6% and 11% of intensive care unit patients develop new-onset atrial fibrillation. These patients are more likely to die in hospital and in the first 90 days after discharge than those who do not. They are also more likely to be readmitted to hospital with atrial fibrillation, stroke and heart failure. The evidence for new-onset atrial fibrillation treatments is limited, but suggests that beta-blockers or amiodarone may work better than calcium channel blockers or digoxin.

Conclusions

New-onset atrial fibrillation in intensive care units is common, and outcomes are worse in patients who develop new-onset atrial fibrillation than in those who do not. Our research shows that some new-onset atrial fibrillation treatments work better than others. This information will help us to plan a study to improve health after new-onset atrial fibrillation.

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This report

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