

Researchers look at therapeutic benefits of ketamine

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The largest trial into the use of Electroconvulsive Therapy (ECT) in the UK in more than 30 years will look into how the use of the Class C drug ketamine might reduce the side effects of ECT for those being treated for severe depression.

Both ECT and ketamine are both known to have benefits as [antidepressants](#) and as rapid and effective treatments for Treatment Resistant Depression (TRD).

However ECT can be associated with confusion and impaired thinking ability and memory. Ketamine, also known by its street name of 'Special K', is used as an animal and human anaesthetic and sometimes for pain relief but cannot be used on its own as a treatment for depression. Small studies have suggested that combining ketamine with ECT can protect against the detrimental effects of ECT on [thought processes](#) and hasten the speed of getting better from depression, but a proper large scale trial of the combination is needed before it is used in clinical practice.

It is particularly hoped that ketamine will reduce the longer-term loss of past memories, including [autobiographical memory](#) – which may include memories of childhood holidays, growing up and early life – that some people experience with ECT and which can be very distressing. The researchers also want to know whether ketamine will increase the rate improving [depressive symptoms](#), which may mean that fewer ECT treatments are needed. An optional part of the study will be to include brain imaging to understand better how ketamine might be working in the brain.

Professor Anderson said: "It's a great opportunity to really study ECT and see how we can improve it. ECT is the most effective treatment we have for severe and [Treatment Resistant Depression](#) – but it can cause cognitive and memory difficulties as a side-effect. This is one of the reasons why not

everyone who could benefit from ECT receives it, or is even offered the opportunity to have it. We believe that by combining ketamine with ECT these side effects on thinking and memory will be reduced or even prevented completely. This may make ECT a more acceptable option in the future."

Ketamine will be given alongside the [anaesthetic](#) received during ECT, and those taking part in the study will be randomised to either receive ketamine, or a placebo (dummy) injection.

Recruitment has just started for the trial, which is looking for 160 participants, all of whom will need to have been referred for ECT by their consultant. Those who do take part in the clinical research trial will help researchers find out whether ketamine should be given routinely with ECT and may help develop better treatments in the future. Participants may also experience direct benefit from less cognitive impairment after ECT and perhaps a faster improvement in their depression (if they receive ketamine).

More information: www.ketect.org/

Provided by University of Manchester

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