Depression

Ketamine treatment for depression
Background

Ketamine is a novel and effective treatment for depression which has not responded to other treatments. Ketamine has a rapid antidepressant effect demonstrated in several clinical trials over the last 15 years.

The response lasts a day for about 70% of patients and up to three days for 30% of patients. In some cases this benefit is long term, up to four months, following three infusions over three weeks. The majority of patients relapse within two weeks after treatment but the response is not predictable in advance.

Oxford Health NHS Foundation Trust’s ketamine service is based at Warneford Hospital, Oxford.

Assessment for treatment

Before treatment you will be assessed in an outpatient appointment on a Friday afternoon to confirm your suitability for treatment. You will be assessed by Dr Rupert McShane MD FRCPsych, a consultant psychiatrist who works at Oxford Health NHS FT and undertakes clinical research at the University of Oxford’s Department of Psychiatry. Initial treatment consists of three ketamine infusions over three weeks delivered on a Monday.
What happens before an assessment appointment?

In order to proceed, we need to receive a referral letter from your GP or psychiatrist. Once we have received this, we may contact them for further information if needed.

We like patients to start monitoring their mood using the True Colours service before they come to the clinic. We will telephone you to set this up.

We will also send you a form to complete. It is essential that you complete this and bring it with you to your appointment.

What happens at the assessment appointment?

At the appointment, which will be held at Warneford Hospital, Headington, Oxford, OX3 7JX, we will:

- check your contact details, including telephone numbers, email, GP and mental health team
- talk to you in detail about your depression
- assess and help you to manage your expectations of treatment
• ask whether you are happy to be contacted about future research

If we decide to go ahead with treatment then we will:

• ask you to sign a consent form confirming that you have read this leaflet, understand the possible side effects and recognise that ketamine is not licensed for the treatment of depression. You can always change

• your mind about receiving treatment at any time without giving a reason.

• do a brief physical examination, including taking your blood pressure

• weigh you

• take a blood test

• check your True Colours set-up

What happens after the assessment appointment?

If there are no problems identified on physical examination or blood tests we will schedule three infusions of ketamine.
This is sufficient to ascertain whether you are a “responder”. If you have not responded to the first two infusions and the dissociative effects are acceptable when we will increase the dose for the third infusion.

Depending on waiting times, there may be a significant delay before your infusions can be scheduled. Three infusions will be over no more than four weeks.

We will write to the person who referred you, copying in your GP unless you direct otherwise.

What treatment involves

- On the day of your ketamine treatments please do not have anything to eat at least two hours before treatment.

- During the appointment a consultant anaesthetist gradually infuses a low dose of ketamine through a drip over 40 minutes. Setting up the drip involved putting a needle into a vein on the back of your hand.

- During the infusion you can lie down or sit in a chair. A nurse will be present in the clinic at all times. Before, during and after the infusion we will check how you are feeling and ask you to describe and record any symptoms or side effects you may be experiencing.
• We ask patients to complete a daily mood assessment via email or SMS text which will only take a few minutes.

Precautions after treatment

• If accompanied home by a responsible adult, you will stay on the unit for an hour after treatment. If it is not possible for you to be accompanied, you should plan to stay on the unit for at least two hours after the end of the infusion.

• You must not drive, drink alcohol, sign any legal documents or be responsible for looking after dependents for 24 hours after receiving your ketamine infusion.

What happens at the end of treatment?

After the initial three treatments a telephone follow-up appointment will be arranged for you to discuss further treatment options. These may include further ketamine infusions or twice weekly oral ketamine.

Post Treatment Care

Once the course of treatment has been completed, your ongoing care will return to your GP / Psychiatrist.

We will provide them with a summary of your treatment and suggestions for your ongoing care.
What are the possible side effects?

Ketamine commonly causes brief side effects including feeling “spaced out” or drunk. Patients sometimes report that things “look peculiar” or have hallucinations. Patients can also feel sick or become anxious during the treatment. During the infusion, if you find the side effects too unpleasant then please tell the consultant anaesthetist that you would like to stop.

These side effects wear off within one hour. However, patients commonly feel tired for the rest of the day after treatment. Sometimes patients also experience headaches or unknown side effects specific to them.

There are theoretical risks of bladder damage and cognitive impairment with long-term use. However, these are typically observed in individuals illegally taking ketamine recreationally as much higher and more frequent doses. We will monitor this through intermittent testing of urine samples and questionnaires. We also do not know if ketamine treatment affects the underlying course of depression.

As mentioned previously, the treatment involves a needle being put into the vein on the back of your hand and a low dose of ketamine infused over 40 minutes. As a result of this infusion method there is a chance that temporary bruising may occur at the needle site.
What is the evidence that it is helpful?

As of 2014 there have been six randomised, controlled trials confirming a beneficial, immediate effect of a single infusion of ketamine in patients with treatment-resistant depression.

The best evidences comes from a trial in which patients were randomly allocated to a dummy treatment which was thought would probably not work for depression (midazolam) or to ketamine. After seven days, four out of 25 (16%) patients who had been given midazolam infusion still met criteria for response compared with 21 out of 47 (47%) who had received the ketamine infusion.

However, it is important to recognise that this is a treatment which has not been evaluated with large clinical trials. There is much that is not known about how, or for whom, it works.

Is there any way of knowing who will benefit?

There is a possibility that a genetic mutation predicts whether patients develop an initial response. However, we do not assess whether you have this mutation. There are no known predictors of a longer duration of response.

There is a suggestion that patients over 70 years old may be less likely to respond and that patients with typical biological symptoms of depression (loss of appetite, disturbed sleep, diurnal variation of mood, slowed thinking and movement) are more likely to respond.
These predictors have not been confirmed and patients who have been chronically depressed and had partial or equivocal response to conventional antidepressants have also benefitted.

What are the criteria for treatment?

Patients must:

• currently be suffering from depression

• have tried at least two different types of antidepressants for at least six weeks each at an adequate treatment dose

• have tried at least one type of psychological treatment

• be referred to the service by a GP or psychiatrist

• be able to travel safely for treatment and assessment appointments

• be willing and able to send depression ratings by either email or SMS texting at least twice a week

• not have taken any illegal drugs for at least the last two years

• not have a current, unstable medical illness
• be able to understand the nature and purpose of the treatment, its benefits and possible side effects

How do I get this treatment?

If you have treatment-resistant depression you should ask your psychiatrist or GP to send a referral letter to:

Dr Rupert McShane, Referral,
Warneford Hospital, Headington, Oxford, OX3 7JX

Pricing and payment information

The ketamine service is not yet available for NHS funding. Oxford Health NHS FT has been providing the treatment as part of its clinical innovation strategy and now offers the commercial service on the following basis.

These prices include the cost of all professional staff including doctors, nurses and healthcare assistants and the costs of all drugs, dressings and other items used in the delivery of the treatment.

Initial assessment appointment with consultant psychiatrist
£150

Initial treatment of three infusions, per infusion
£215 per infusion
£645 for three infusions

Further treatments
£195 per infusion
£50-£100 per month of oral ketamine, depending on dose

- You will receive an itemised, personal quotation for any services offered.

- On confirmation of your treatment date and type the clinical team will ensure that you are fit for treatment for your own safety.

- Payments can be made by credit card (subject to an additional 2% surcharge), debit card or electronic bank transfer.

- Payment for the quoted amounts must be made in advance of your assessment or treatment.

All of the income from this service is used to fund NHS care within Warneford Hospital and other NHS sites across Oxfordshire, Buckinghamshire, Wiltshire, Swindon, Bath and North East Somerset where Oxford Health NHS Foundation Trust operates.

Concerns and complaints

We aim to provide you with a high quality service at all times. However, if you have any concerns, complaints or comments about your experience of our service then please tell a member of the team or contact the Patient Advice and Liaison Service on freephone 0800 328 7971.
Further information and contact details

If during the course of treatment you have questions or are concerned about any aspects of your treatment please contact:

- Hayley Trueman, ketamine clinic nurse  
  Tel: 01865 902 522

- Dr Rupert McShane, consultant psychiatrist  
  Email: ketamineclinic@oxfordhealth.nhs.uk