Introduction
Ketamine, originally developed as an anaesthetic, has been shown in recent years to be an effective, rapidly acting therapy for treatment-resistant depression. It is usually given by intravenous infusion, thus limiting its availability and accessibility. Small studies have suggested that taking ketamine sublingually is as effective as using the intravenous route [1] and this approach can be safely used for extended periods in the home setting [2]. My study, which commenced in September 2014, aimed to test the safety and efficacy of sublingual ketamine, taken at home, for my patients suffering from TRD.

Method
After evaluation and provision of information concerning known risks and benefits together with discussion of alternative therapies, patients signed a consent form and were given a monitored ultra-low test dose [12.5mg] of ketamine sublingually in my rooms. Subsequent doses were taken every second day at home with daily visual analogue scale [VAS] monitoring. Doses were adjusted according to response and side effects. If remission was attained patients took further doses as necessary when they sensed their mood declining - at that time they would take the amount of the last effective dose.

Ketamine was added to ongoing medication and psychological treatments. Progress was monitored by phone, email and practice visits and cases have been regularly discussed with my peer-review group.

Patients treated to date - 30 in total, comprising 20 males and 10 females, with an age range of 25-89 years and an average age of 51.

Diagnoses: 25 patients with Major Depression, 5 with Bipolar Depression, 18 had comorbid anxiety disorders and 10 had comorbid chronic pain.

Previous treatments: All had trialled multiple antidepressants and psychological therapies, eight had had prior ECT, two TMS, two TCDS, one psychosurgery. Two had had prior ketamine infusions for pain and one had tried street-acquired ketamine for depression.

Results
In Figure 1 response denotes a 50% improvement in VAS scores for depression. Remission indicates a VAS score of 8/10 and above.

Effective dose of ketamine:
Range: 5mg - 300mg.
Average dose: 90mg.
Most common effective doses: 50mg [8 patients] and 100mg [11 patients].

Intervals between doses with maintenance therapy:
Daily - 3.
Two to three times weekly - 16.
Weekly - 2.
Fortnightly - 2.
Longer - 7.

Other benefits:
Rapid and strong reduction in suicidal thinking, less pain, improvement in anxiety symptoms, less alcohol and nicotine use, reduction or cessation of other medications.

Side effects:
• Most described transient light-headedness and sedation with higher doses.
• One described mouth irritation and diarrhoea.
• One reported increased sweating and acne formation.
• One developed hypomania that was ultimately attributed to restarting phenelzine which had previously caused this reaction.
• Short-lived dissociation occurred in about 50% of those taking doses more than 100mg.
• No reports of bladder symptoms.
• No evidence of diversion or dependence.

Conclusion
These results confirm that sublingual ketamine taken at home is a safe, and for many, effective therapy for treatment-resistant depression. It is a therapeutic option available to all psychiatrists.

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References