KETAMINE THERAPY INFORMED CONSENT

Patient name _____ Date _____

INTRODUCTION

This consent form contains information about the use of subanesthetic ketamine therapy for depression. Ketamine has been approved by the Food and Drug Administration (FDA) for use as an anesthetic agent for many years. The use of ketamine in lower, subanesthetic doses to treat depression is a newer, off-label use of ketamine. This means the FDA does not endorse the use of ketamine for depression, or as a psychotherapeutic agent, and classifies such uses as investigational. Ketamine is not a first-line treatment for depression and is usually used after other treatments have been unsuccessful. After you understand the risks and benefits of this treatment, you will be asked to sign this form to participate. For you to decide whether you should undertake this therapy, you should understand enough about its risks and benefits to make an informed decision. This process is known as informed consent.

Ketamine is a novel psychiatric treatment—the primary studies have been with major depressive disorder, bipolar depression, and substance use disorders. While the FDA does not formally approve it, there are now many studies that demonstrate it may be an effective and rapid treatment option. Benefits may occur after only one treatment, though typically an initial course of several treatments are required for a more robust response. If your depressive symptoms respond to this initial course of ketamine therapy, you may receive further treatments. You may still elect to be treated with other medications and ongoing psychotherapy to try to reduce the possibility of relapse. Over time, you may also need additional periodic ketamine treatments or other therapies to maintain your remission. Ketamine therapy works best when part of an integrated treatment program including other medications, psychotherapy, and lifestyle changes. It may not permanently relieve depression.

By signing this document, you indicate that you understand the information and that you give your consent to the medical procedures to be performed during your participation in ketamine treatment. Please read this consent form carefully, and feel free to ask questions about any of the information in it.

ELIGIBILITY FOR KETAMINE THERAPY

Before participating in ketamine therapy, you will be carefully screened to determine if you are eligible, including a medical history, psychiatric history, and possibly psychological testing. Pregnant women, nursing mothers, and women of child-bearing age who are not using an effective method of birth control should not receive ketamine.

If you become pregnant while participating in this program, you should notify your medical providers immediately as the effects of ketamine on the unborn child are undetermined.

OVERVIEW OF SUBSANESTHETIC KETAMINE TREATMENT

During the ketamine administration session, you will be asked to make two agreements with your provider to ensure your safety and well-being:

1. You agree to follow any direct instructions given to you by the provider until it is agreed that the session is over, and
2. You agree to remain at the location of the session until the provider decides you are ready to leave.

The length of a ketamine session is approximately 1.5 – 2 hours, and you may need to remain in the recovery area for up to an hour following administration. Ketamine can be given as an intravenous (IV) injection or drip, intramuscular (IM) injection, nasal spray, or Troche by mouth.

For IV treatment, an intravenous catheter is placed, and ketamine is infused over the following 40 minutes at a total dose of 0.5 mg/kg body weight. For IM treatment, ketamine is given as an intramuscular injection into the arm (deltoid muscle) or buttocks at a dose of 0.5 mg/kg body weight and above. Ketamine can also be compounded for use in other routes of administration, such as oral/sublingual troches.

If you become anxious or uncomfortable you may be offered a sedative agent, lorazepam (trade name Ativan), but typically all that is needed is reassurance. If nauseous you may be offered ondansetron (trade name Zofran), or promethazine (trade name Phenergan. For elevated blood pressure you may be offered clonidine (trade name Catapres). For elevated heart rate, or tachycardia, you may be offered propranolol (trade name Inderal). All these medications can be given sublingually, and some intramuscularly. For all other routes, the provider/staff will observe you every 15-30 minute. Usually, you will remain alert and able to talk during the procedure, but your perception and mental state will be altered by the ketamine. You will return to a normal mental state as the injection or troche wears off. When you have returned to your usual state of consciousness, you will be asked to share the experience with your provider and discuss any feedback.

You may ask your provider any questions you may have concerning the procedure or effects of ketamine at any time. Your consent to receive Ketamine may be withdrawn and you may discontinue your participation at any time up until the actual dose has been administered. Alternatively, you may receive ketamine as a compounded nasal spray, oral lozenge, or liquid. Ketamine via these routes of administration may be used to

help maintain the effect, or as a sole treatment. Ketamine in lozenge or liquid form will be provided for sublingual administration. This involves holding the lozenge or liquid ketamine in your mouth for 5-10 minutes to allow it to fully dissolve and become absorbed in your mouth. For use of intranasal or oral ketamine at home, the following rules apply:

Ketamine is to be kept under lock and key, and never shared with anyone else. Unless otherwise agreed upon, a family member or trusted companion should be present during the hour and a half following treatment.

Do not drive while you are sedated or under the influence of ketamine, and do not drive for the remainder of the day after taking a dose of ketamine; you may again drive the following day, after a night of sleep.

ESTIMATE OF EXPECTED RECOVERY TIME

The non-ordinary state of consciousness produced by ketamine usually lasts approximately 30-45 minutes for an IV infusion or IM injection but can last for one to two hours. For other routes of administration, this timeline is extended. The reduced sense of balance, dizziness, and possible nausea when moving your head gradually subside over three to six hours.

POTENTIAL RISKS OF SUBSANESTHETIC KETAMINE THERAPY

You will be asked to lie still during and after ketamine administration because your sense of balance and coordination will be impaired until the effect has worn off. It is possible you may fall asleep. Other possibilities for adverse effects include blurred and uncomfortable vision, slurred speech, mental confusion, excitability, diminished ability to see things that are actually present, diminished ability to hear or to feel objects accurately including one's own body, anxiety, nausea, and vomiting. Visual, tactile, and auditory processing are affected by the drug. Music that may be familiar may seem out of the ordinary. Synesthesia, a mingling of the senses, may occur, and your sense of time may be altered.

Ketamine may also cause the following adverse reactions: tachycardia (elevation of pulse), diplopia (double vision), nystagmus (rapid eye movements), elevation of intraocular pressure (feeling of pressure in the eyes), and anorexia (loss of appetite). The above reactions are more likely to occur after rapid IV or IM administration of high doses ketamine (in the range of greater than 5 mg/kg, as used for surgical anesthesia). The dose to be used in subanesthetic
ketamine therapy is much lower (less than 1.5 mg/kg).

Because of the risk of nausea and vomiting, please refrain from eating and drinking for at least the 6 hours preceding the session. If you are unduly nauseated, you may be offered an anti-nausea medication.

Ketamine generally causes a significant increase in blood pressure and heart rate (pulse). If monitoring reveals that your blood pressure is too high, you may be offered clonidine, an anti-hypertensive. If monitoring reveals your heart rate is too high, you may be sent to the Emergency Room (ER). Agitation may occur during a ketamine session. You may be offered lorazepam by injection to help you relax. If your agitation is severe, you may be sent to the ER.

Driving an automobile or engaging in hazardous activities should not be undertaken until all effects have stopped, and enough time has elapsed—and if for any reason they continue a driver may be necessary. You will be assessed for safety prior to leaving the office premises but must not drive for the remainder of the day after taking ketamine. In terms of physical risks, ketamine should not be taken if you have untreated hyperthyroidism.

There have also been reports of some decrease in immune function in patients receiving surgical doses of ketamine; however, this has not been seen in subanesthetic doses. Ketamine has an extensive record of safety and has been used at much higher doses for surgical anesthesia, without respiratory depression. **Untreated hypertension is a contraindication to ketamine use as the substance may cause a rise in blood pressure. Similarly, a history of heart disease may make you ineligible to participate**. Repeated, high dose, chronic abuse of ketamine, has been shown to cause urinary tract symptoms and even permanent bladder dysfunction, though in medical use this is rare. In terms of psychological risk, ketamine has been shown to worsen certain psychotic symptoms in people who suffer from schizophrenia or other serious mental disorders, but alternatively
has also been occasionally used to successfully treat psychotic depression. It may also worsen underlying psychological problems in people with severe personality disorders. During the experience itself, some people have reported frightening and unusual experiences. These frightening experiences, however, may be of paramount value in your transition to recovery with the help and ongoing guidance from your provider and/or psychotherapist.

POTENTIAL FOR KETAMINE ABUSE AND PHYSICAL DEPENDENCE

Ketamine belongs to the same group of chemicals as phencyclidine (Sernyl, PCP, “Angel dust”). Collectively, this group is in the chemical class of arylcyclohexylamines, and are further classified as hallucinogens (“psychedelics”). Ketamine is a controlled

substance and is subject to Schedule III rules under the Controlled Substance Act of 1970. Medical evidence regarding the issue of drug abuse and dependence suggests that ketamine's abuse potential is equivalent to that of phencyclidine and other hallucinogenic substances, which are minimal risk
in terms of abuse liability. However, cravings have been reported by some individuals and there are documented cases of overuse of illicitly obtained and diverted ketamine. In addition, ketamine can have effects on mood (feelings), cognition (thinking), and perception (imagery) that may make some people want to use it repeatedly. Therefore, ketamine should never be used except under the direct supervision of a licensed physician. Such potential for abuse or
development of a ketamine use disorder is greater when it is used outside of the office, where there is no monitoring from a physician or other provider.

ALTERNATIVE PROCEDURES AND POSSIBILITIES

No other procedure is available to produce the specific effect ketamine provides, though electroconvulsive therapy (ECT), transcranial magnetic stimulation (TMS), vagal nerve stimulant, and deep brain stimulation (DBS) are alternatives that may offer improvement in depressive symptoms for those with treatment resistant depression. Major depressive disorder (MDD) and bipolar depression and are optimally treated with a combination of medications and psychotherapy. Specific medication treatment alternatives include
augmentation with antipsychotics, thyroid hormone, and bupropion.

CONFIDENTIALITY

Your privacy and all therapy records will be kept confidential. They will be maintained with the same precautions as ordinary medical records. The results of this ketamine therapy may be published in clinical literature. Published reports will not include your name or any other information that would identify you.

VOLUNTARY NATURE OF PARTICIPATION

Your decision to undergo ketamine treatment is completely voluntary. Before you make your decision about participation, you may ask and will be encouraged to ask any questions you may have about the process. Withdrawal from ketamine treatment is always your option. Even after agreeing to undergo ketamine treatment, you may decide to withdraw at any time.

INFORMED CONSENT

By signing this form, I agree that:

1. I understand that I am to have no food or drink 6 hours prior to my ketamine session.
2. I understand that I need to have someone drive me home from the sessions, and not engage in any driving or hazardous activity for at least 6 hours or more--depending on the continued presence of effects after my session has concluded.
3. I have fully read this informed consent form describing subanesthetic ketamine therapy.
4. I have had the opportunity to raise questions and have received satisfactory answers.
5. I fully understand that ketamine sessions can result in a profound change in mental state and may result in unusual psychological and physiological effects.
6. I have been given a signed copy of this informed consent form, which is mine to keep.
7. I understand the risks and benefits, and I freely give my consent to participate.
8. I give my consent to the use of ondansetron for nausea.
9. I understand that if my blood pressure gets too high or I become extremely agitated, 911 will be called and I will be sent to ER for further treatment.
10. I understand that I may withdraw from ketamine therapy at any time up until the actual injection has been given.

PATIENT SIGNATURE _____ DATE _____

PRINTED NAME _____

PROVIDER/THERAPIST STATEMENT

I have carefully explained the nature of subanesthetic ketamine therapy to this patient. I hereby certify that to the best of my knowledge, the individual signing this consent form understands the nature, conditions, risks, and potential benefits involved in participating in ketamine therapy. A medical problem or language or educational barrier has not precluded a clear understanding of the subject's involvement in KAP.

PROVIDER SIGNATURE _____ DATE _____

PROVIDER NAME: Lisa Blackwelder FNP-C, PMHNP-BC