M.U.D. GROUP Metropolitan Underwriting Discussion

2025 Conference

CONFIDENTIAL

Clinic Confidential

New and emerging treatments in medicine discussed in Case Study format

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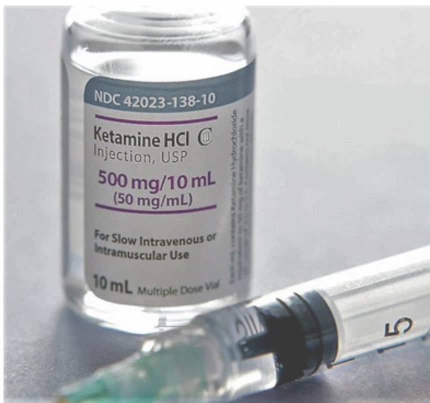
Today's Topic

Ketamine

KETAMINE BIOAVAILABILITY

INTRAVENOUS	INTRAMUSCULAR	INTRANASAL	ORAL	RECTAL
100%	93%	8-45%	17-29%	11-25%

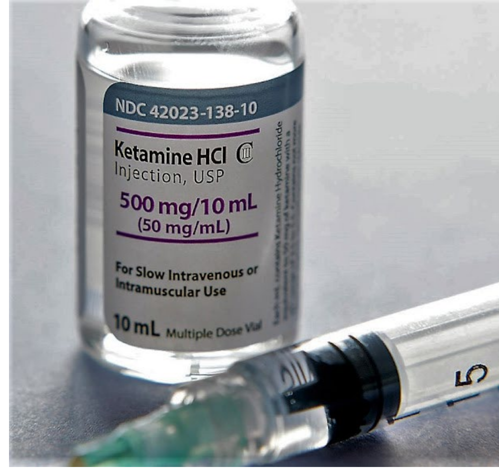
With intraindividual variability

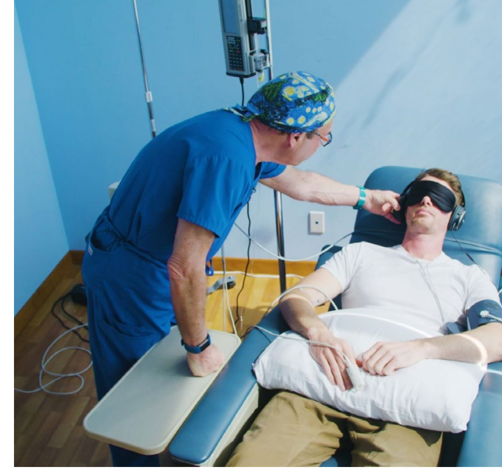


Ketamine

Sedation effect

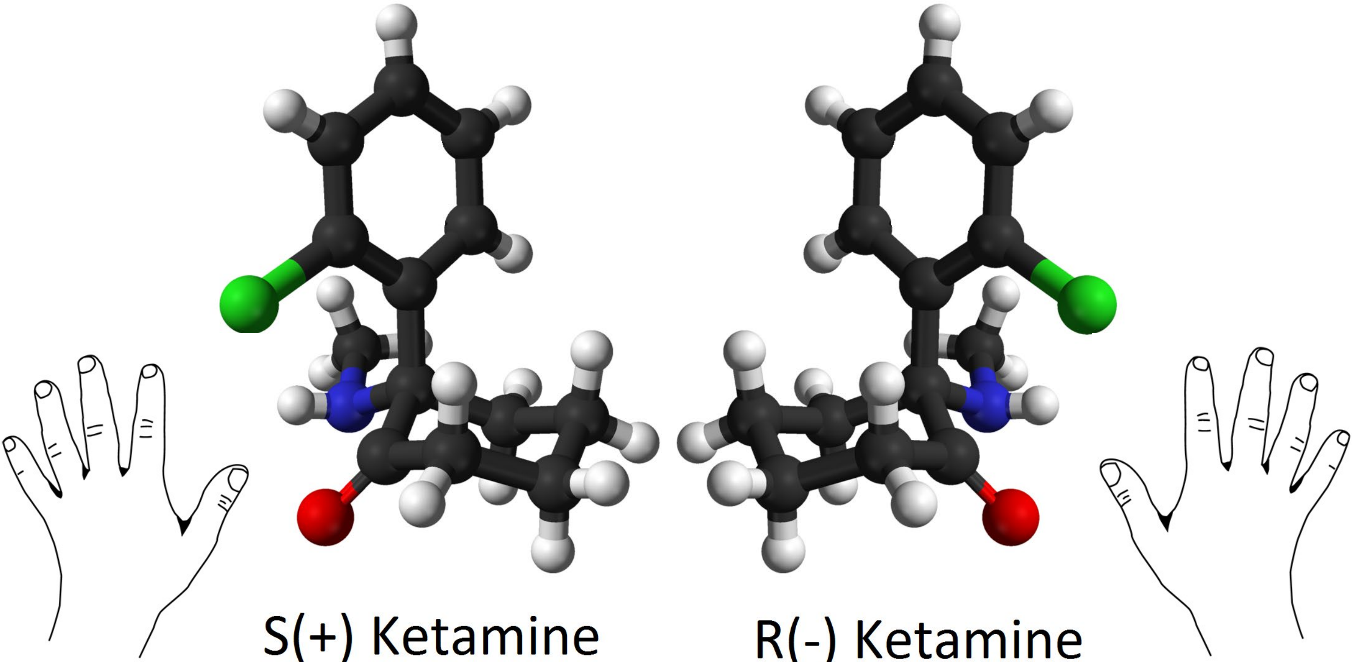
Ketamine





Ketamine

Optical Isomers of Ketamine



S(+) Ketamine
Left hand enantiomer

R(-) Ketamine
Right hand enantiomer

Ketamine

- Time passed since treatment or regular, infrequent maintenance intervals
- Well supervised, controlled environment, reputable source
- Compliance with treatment recommendations and follow-up
- Thorough documentation of symptoms and treatment
- Absence of concerning physical and mental comorbidities
- Recent start of treatment, recent suicidality
- History of addiction or drug abuse
- Concurrent use of concerning substances or medications
- Temporary elevation of BP, especially with coexisting CV risk factors

Case SL

46 y/o woman for 500K Term

- 5’3” 132 lbs. – Long h/o depression, multiple failed meds, no typical psych records
- Meds: Auvelity, Celebrex, Percocet (prn)

APS PCP:

- 7/24: TRD, going to do ketamine with telehealth provider, pain better on recent adjustments
- 8/24: chronic pain due to severe fibromyalgia (wrists, back, shoulder, hands, hips, migraines), sleeping better with log acting tramadol (has pain contract)
- 10/24: finished ketamine treatment, taking Auvelity and increasing dose now ketamine is done, mood improved and hopes it lasts

Case SL

46 y/o woman for 500K Term

Publication | Article | October 6, 2022

Psychiatric Times

Vol 39, Issue 10 | Volume

The Online, At-Home Ketamine Experience: A Clinician's Dilemma

Author(s): Michael D. Banov, MD , Rachel E. Landrum, MA

Case KT

56 y/o man for 10 mil Term

- 6’0” 178 lbs. – CEO of records label, vegan, runs ironman
- HTN on med
- Remote h/o cocaine and alcohol abuse, sober for 20+ years, attending AA very regularly
- Quit smoking in 2022 (15 py), uses nicotine gum
- Admits to longstanding anxiety, therapy only
- Rx check: 2021 – bupropion and fluoxetine
  2022 – fluoxetine
  2023 – off all psych meds

Case KT

56 y/o man for 10 mil Term

APS PCP:

- 7/2020: long history of depression and anxiety, unsuccessful trial of Zoloft, started Cymbalta and Wellbutrin 10 years ago. Stopped Cymbalta in 1/2020 for feeling dull, had 4 weeks of euphoria, then "crashed." Has been doing ketamine treatments in February and May (total of 6). Struggling since stopping ketamine, irritable, depressed.
- 8/2020: better on bupropion and fluoxetine, thinking of starting ketamine again
- 10/2020 through 10/2021: doing well on bupropion and fluoxetine

Case IV

40 y/o woman for 5 mil UL

- 5’2” 143 lbs. – homemaker
- No tobacco, 2-3 drinks per week
- Roux-en-Y bypass 12/2022
- Meds: clonazepam, ketamine 2x/month for depression/anxiety

APS (Ketamine provider, psychiatrist):

“Under my care since 8/5/19, initially referred for MDD, recurrent, severe, GAD & PTSD; was treated with Spravato from 10/21/19-3/2/21 and then transitioned to IV Ketamine which she now gets about every 2 weeks, her symptoms are well controlled and in remission, PHQ-9 = 6 and GAD-7 = 3. She gets 100mg of Ketamine over 1 hour.”

Case IV

40 y/o woman for 5 mil UL

APS (psychiatrist):

- 4/2019 - SI's noted; PMH: 8-9 years ago used MJ & cocaine, 16 yrs old used heroin & crack, ecstasy often at 17 yrs old
- 8/2019 – binges about 2 x per month, 1 bottle of wine; start Zoloft and esketamine
- 2022 and 2023 doing ok, ketamine every 2-3 weeks, no other meds, no issues with alcohol, GAF: 65-75
- 3/2024: anxiety really high, very unhappy, got drunk at a gala; 7/2024: big rift in marriage
- 9/2024: paranoia, flashbacks, feels lost and broken, increased alcohol use, feels worse the next day, frequency of ketamine increased to weekly - LOV

Case NP

50 y/o woman for 5 mil UL

- 5’5” 130 lbs., 108/62 – massage therapist
- Daily tobacco mints, never smoker, occasional cannabis for sleep
- Hx: colitis, Lyme, anxiety, COVID19, insomnia
- Meds: estradiol, progesterone, ketamine, testosterone, Xanax (prn)

APS (ND):

- 1/2024: chronic fatigue, leaky gut, heavy metal toxicity; started HRT and monthly IV chelation
- 2/2024: extensive lab work, all normal
- 3/2024: severe brain fog with associated depression; microdosing methylene blue did not help, but was not medical strength
- 4/2024: GI healing, restore mitochondrial health; started on multiple peptides/amino acids, larazotide for leaky gut, testosterone injections
- Monthly IV therapy with glutathione 4/24 through 6/24
- 8/2024: wants IV ozone therapy, scripts for semaglutide/tirzepatide

Case NP

50 y/o woman for 5 mil UL

APS (PCP):

- 2020: wants Diflucan for systemic candidiasis
- 2021: works with specialist for LONG COVID
- 2022: HRT discussion, requests MD to call compounding pharmacy to specify how she wants to take the medications
- 3/2024: Ketamine 200mg RDT mint sans stevia. Dissolve under tongue and hold for up to 15 minutes 4x per week as needed (filled 2/21/24)
- 4/2024: wants steroids for severe exhaustion, adrenal fatigue
- H/o Crohn's or UC in 2006 by colonoscopy, made diet changes, no follow-up, referred for c'scope 5/23 & 3/24, has too much anxiety

Case IN

57 y/o woman for 11 mil UL

- 5’11” 183 lbs. – Financial professional
- ADHD and anxiety; Rx Adderall, Lexapro, alprazolam (prn)
- 2-4 drinks per week, no tobacco, exercises
- APS (PCP): no adverse psych or alcohol criticisms
- HOS (7/24): HDL 80, LFTs nl, drug screen negative, CDT not done
- APS (cardio): referred by friends for cardiac screening; “Has seen therapist for anxiety depression. Dipsomaniac. Micro-doses psilocybin 2x/month, ketamine nasal spray weekly.” Followed by psychiatrist.

Summary

Esketamine (intranasal) has been FDA approved for TDR and MDD with suicidal ideation/behavior

Phase 3 trials confirmed safety and efficacy

IV ketamine appears to have a very similar, possibly superior risk profile to esketamine

Oral ketamine may be beneficial, but requires additional research at this time

Take Home Points

- Mortality from ketamine is largely associated with recreational use/abuse
- Applicants with past or ongoing ketamine treatment can be considered for coverage
- Consider severity of underlying depression, response to treatment and stability over time
- Confirm appropriate use and supervision of treatment
- Take comorbidities and abuse potential into account

Thank you!