



Academy of
Aid-in-Dying Medicine

Single Article PDF

Issue 2, Volume 1. December 2024
www.AADM.org

Taos, New Mexico

Journal of Aid-in-Dying Medicine

IN THIS ISSUE:

- Disproportionate Use of Aid in Dying Among People with ALS
- Anorexia Nervosa and Aid in Dying: An Overview
- Aid-in-Dying Death Duets
- Ketamine in the Aid-in-Dying Context
- Remote Witnessing of Aid-in-Dying Written Requests
- Voluntary Stopping of Eating and Drinking: A Bridge to Aid in Dying?



Academy of
Aid-in-Dying Medicine

Journal of Aid-in-Dying Medicine
Single Article PDF
Terms of Use and Limited License Agreement

By purchasing or receiving this Single Article PDF from the complete online form of the Journal of Aid-in-Dying Medicine, **you agree to use this article solely for your individual educational purposes**. You may make a reasonable number of copies for that purpose. You may not use this or other Journal articles for any other purpose without our prior written consent, from Journal@AADM.org

You additionally agree to and must follow the Terms of Use and Limited License agreement at <https://www.aadm.org/journalterms>.

Disclaimer

The opinions, findings, and conclusions expressed in the articles published in the Journal of Aid-in-Dying Medicine are those of the authors and do not necessarily reflect the views of the journal, its editors, or the publisher. The journal, its editors, and the publisher disclaim any responsibility or liability for such material and do not guarantee, warrant, or endorse any product or service advertised in this publication, nor do they guarantee any claim made by the manufacturers of such products or services.

KETAMINE-ASSISTED THERAPY IN THE AID-IN-DYING CONTEXT

LONNY SHAVELSON, MD;¹
MICHAEL FRATKIN, MD;²
CHARLOTTE CHARFEN, MD;³
STEWART ANDERSON, MD;⁴
LUCINDA GRANDE, MD;⁵
ANGELIQUE LOSCAR, MBA⁶

1. Director of Education, Academy of Aid-in-Dying Medicine.

2. Palliative care physician, Arcata, California; President of the Institute for Rural Psychedelic Care.

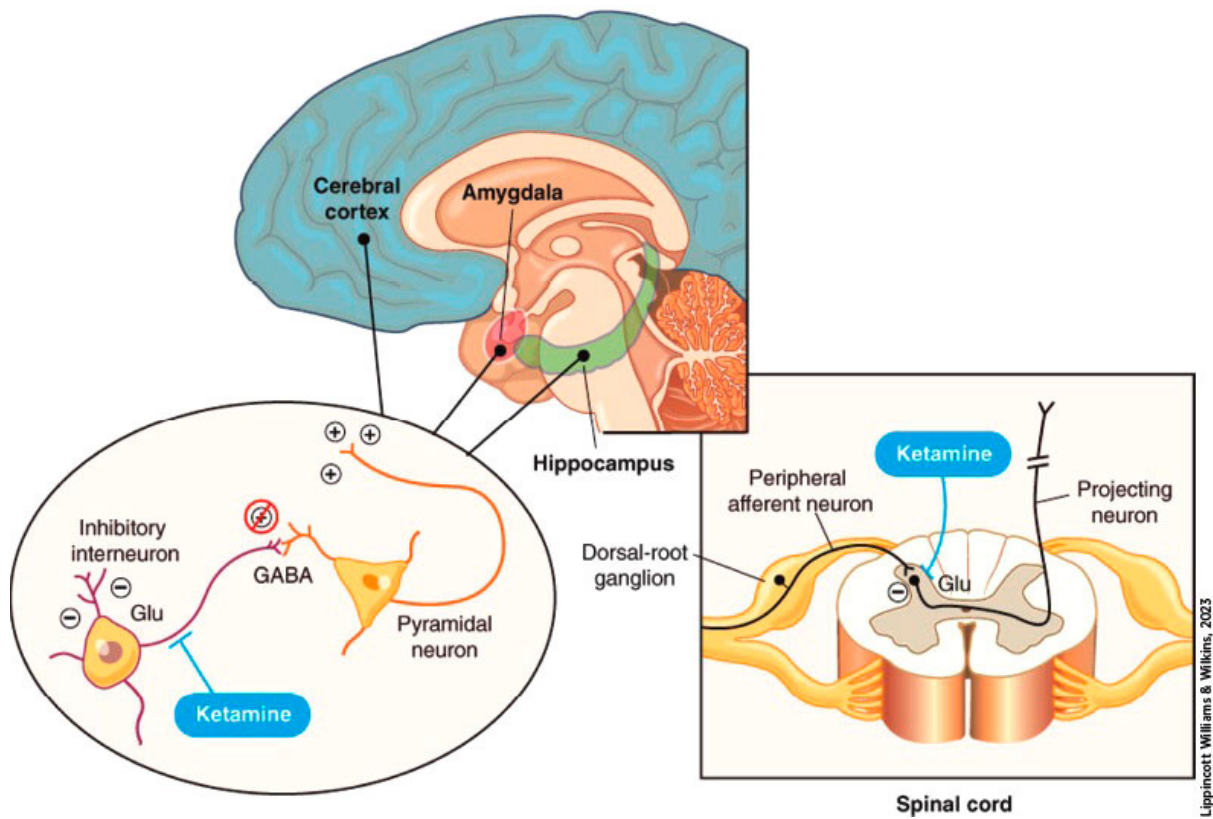
3. Fusion Medicine & Wellness, Kapa'au, Hawaii.

4. Insight Ketamine, Santa Fe, New Mexico.

5. Pioneer Family Practice, Lacey, Washington.

6. Director of Data Analysis, Academy of Aid-in-Dying Medicine.

CORRESPONDING AUTHOR: Lonny Shavelson, Lonny@AADM.org



Lippincott Williams & Wilkins, 2023

ABSTRACT: Psychedelic therapy has been much discussed in the lay and medical literature, with increasing attention to end-of-life care. But little has been written about this therapy specifically for patients considering or completing medical aid in dying. Most psychedelics, for legal or practical reasons, cannot be used for patients nearing death. Ketamine, though, is an FDA-approved anesthetic agent that is also considered an “atypical psychedelic”—with many similar properties. Ketamine is readily available and is commonly used for legal “off-label” indications.

This article discusses five cases of ketamine-assisted therapy in the aid-in-dying context. It is not an advocacy article and is not intended to guide aid-in-dying clinicians through the use of ketamine. Rather, the article opens a discussion about the potential use of ketamine for patients considering aid in dying and delves into questions still to be resolved and the potential for future research.

KEYWORDS: ketamine, psychedelics, aid in dying, medical aid in dying

INTRODUCTION

The intersection between psychedelic medicine and end-of-life care has been increasingly detailed in the medical and lay press.¹ Psychedelic drugs ranging from psilocybin (for depressive disorders)² to MDMA (post-traumatic stress disorder)³ to the LSD-analog MM120 (anxiety)⁴ are undergoing a renaissance of investigations—including for palliative and end-of-life care. In October 2024, Medscape News summarized: “Palliative care has proven to be one of the most promising fields for research on interventions with psychedelic substances.”⁵ They cited improvements in mood, quality of life, and reduced death-related anxiety.

For some clinicians working with patients considering or completing medical aid in dying, this brought up questions about the role psychedelic medications might play in that specific care. The catch, though, has been that while psilocybin has been designated a “breakthrough therapy” by the Food and Drug Administration (FDA),⁶ it has not yet received FDA approval and therefore it cannot be used outside of a clinical trial. Additionally, psilocybin and LSD remain Schedule I drugs at the federal level which makes access even more difficult. Currently, these psychedelics can only be accessed legally in Oregon and Colorado through state-regulated programs at highly regulated “service centers”⁷ and “healing centers” respectively.⁸

By contrast, ketamine is a Schedule III drug (currently accepted treatment use). It was approved by the FDA in 1970 as a “dissociative general anesthetic” (creates detachment from the internal and external environment, along with amnesia and analgesia).⁹ Ketamine’s FDA-approved general anesthesia indication has rapidly expanded to myriad legal “off-label” uses, from short-term procedural analgesia during the Vietnam War and in today’s emergency departments to, in lower doses, a rapid-onset treatment for chronic pain and depression. Clinics offering ketamine for the treatment of depression, post-traumatic stress disorder (PTSD), and anxiety disorders have proliferated in recent years.¹⁰ Ketamine’s use has grown so substantially and for such diverse indications it is now included on the World Health Organization’s List of Essential Medications.¹¹

While ketamine is not a “classic psychedelic” like LSD or psilocybin and although it has a different receptor profile, its effects are similar to drugs traditionally called psychedelics: altered states of consciousness, visual hallucinations, and time/space distortions with out-of-body experiences.¹² Given these characteristics, ketamine has been called an “atypical psychedelic”.¹³ Significantly, in the end-of-life context, ketamine-assisted therapy is said to induce profound personal insights. It is also a highly effective pain-control agent with a mechanism independent of opioid re-

ceptors. Ketamine blocks N-methyl-D-aspartate (NMDA) receptors and, as such, prevents sensitization of dorsal horn neurons, decreasing pain transmission in the spinal cord (it is especially effective with neuropathic pain).

For terminally ill patients, ketamine has many advantages over traditional psychedelics like psilocybin. It is legal, readily available, and administered in easily adjusted dosages by a variety of routes (intravenous, intramuscular, subcutaneous, intranasal, nebulized inhalation, sublingual, rectal, and oral).¹⁴ Additionally, the risk of respiratory suppression at psychoactive doses is extremely low. Ketamine-assisted therapy does, however, have limitations. Most significantly, on the part of both the patients and clinicians, it requires an extensive time commitment for an evaluation and preparation session; drug administration; accompaniment during the dissociative experience; and, following the session, an exploration of insights gained—a process of many hours. Clinicians using ketamine in the aid-in-dying context can, when necessary, alter that sequence and time involvement, but doing so is a deviation from typical ketamine-assisted therapy.

Reports of ketamine-assisted treatments in palliative and end-of-life care have been increasing, including among hospice patients, with myriad articles in the medical literature positively evaluating the benefits,¹⁵ which include improved pain management, decreased opi-

oid use, rapid improvement of depression, and decreased fear and existential distress about dying. Yet there have been no reports about ketamine treatment specifically with aid-in-dying patients, whose clinical course, psychology, and social milieu can differ significantly from the general end-of-life or hospice population. In response to the lack of knowledge about ketamine-assisted therapy in the aid-in-dying context, in May 2024, Dr. Lonny Shavelson posted a notice on the Clinicians' Listserv of the Academy of Aid-in-Dying Medicine asking specifically about experiences with ketamine therapy for patients considering or completing medical aid in dying. This article details some of the responses. These are anecdotal, not in any way formalized as a study. We publish them here to provide some enlightenment and guidance for clinicians already providing ketamine in the aid-in-dying context and those who may consider doing so.

When reading the case histories below, we encourage the reader not to consider “success” based on a particular desired outcome. Asking whether ketamine therapy helped a patient reach clarity to proceed with aid in dying or not to proceed, we believe, is the wrong question. Rather, if the patient felt less distressed about dying and their chosen path to death—that’s a desired outcome. We discuss this further following the five case histories.

CASE HISTORIES

Patient AA

Michael Fratkin, MD.

Palliative care physician and president of the Institute for Rural Psychedelic Care. California.

AA, a 79-year-old man with treatment-resistant widely metastatic renal cancer, was admitted to hospice for intractable pain with a neuropathic component. AA was dedicated to Buddhist practices and well supported by his community, or sangha. He'd had aid-in-dying medications on hand for months. AA lamented at our first meeting that he was suffering greatly from physical symptoms and progressive dependence on others, identifying these as reasons to proceed with aid in dying. Some members of his sangha, however, suggested that, given their understanding of karmic principles, living through this period of decline and suffering would be virtuous. AA was distracted by this existential struggle between ending what he considered to be intense suffering or continuing through it. This led him to irritability and argumentativeness.

AA's end-of-life doula told him about my grant-funded project in ketamine-assisted therapy and my work as a palliative care physician. AA agreed to the protocol of three home-based sessions, with extensive preparation, support, and integration by myself and the doula. Be-

fore these sessions, his pain-control regimen consisted of accelerated doses of methadone, with hydromorphone for breakthrough pain and adjuvant gabapentin—providing little relief, progressive agitation, and undesired mental clouding. He rated his pain at nine of ten.

In preparation for AA's first session, he identified a period of self-inflicted trauma from years of heavy methamphetamine use, associated with profound shame. This contributed to his agitation as he approached death. Ketamine 0.7mg/kg IM with a 0.3mg/kg booster at 20 minutes was administered. AA's historical traumatic material surfaced dramatically, with shaking and yelling as he appeared to be reenacting his terrible memories of substance abuse, describing days on end in cheap motels by himself. He processed the experience openly and calmly. He later stated that it was more than a memory, "I was actually reliving the experience." At the close of that first session, AA reported that his pain had disappeared for the first time in months.

In follow-up for integration the next day, AA's pain remained reduced to 2 of 10. He had not used any breakthrough hydromorphone for 24 hours. AA's demeanor seemed relaxed as he reflected on feeling relief from his shame.

At his second session, two weeks later, AA hoped to find clarity about taking medications to die. He acknowledged the weight of his ambivalence and the perceived conflict with his sangha. At his request, a

slightly higher dose was given (ketamine 0.8mg/kg IM with a 0.4mg/kg IM booster at 20 minutes). AA experienced a brief period of anxiety and restlessness. Then, emerging from the non-ordinary state of consciousness abruptly, AA calmly reported that he had achieved clarity to take aid-in-dying medications. He did not choose a date. AA outlined a plan of communication with his sangha and son.

Due to delays not related to ketamine treatment, AA's third and final session was four weeks later. Some of his ambivalence about aid in dying had returned. After again receiving the lower ketamine dose, he became clear that aid in dying should be his route to death. This clarity was accompanied by, or possibly caused by, relief from anxiety about dying and a welcome sense of grief for leaving those he loves. He planned to take medications to die a week later and followed through with that plan.

Patient AB

Michael Fratkin, MD.
Palliative care physician and
president of the Institute for
Rural Psychedelic Care. California.

AB was a recently retired hospital social worker only months into a diagnosis of amyotrophic lateral sclerosis (ALS). Her deterioration had been breathtakingly fast for ALS, from her first mild weakness to requiring a wheelchair and then having difficulty swallowing—all in less than four months.

AB was “crystal clear” that she did not wish to experience a long tail of progressive loss of function. She had cared for more than a few patients with ALS and made it clear to her family and in her directives that she declined the minimally effective ALS disease-modifying treatments, a feeding tube, or hospitalization for respiratory distress or other acute symptoms.

For the past 15 years, AB had worked as a hospital-based therapist. She described a deeply personal process of “doing my own work” while caring for the mental health needs of her clients. She expressed profound sadness about not being able to watch her two-year-old granddaughter grow up but emphasized that she did not fear death, have unresolved issues, or feel conflicted by burdensome regrets. She related an anticipatory excitement of her death as a mystery to experience. However, AB maintained significant anger about being denied aid in dying by her ALS clinical team.

AB was introduced to the possibility of ketamine therapy after her daughter attended a presentation of mine. She told her mother about it, hoping it might clear up some of her distress over being denied her preferred pathway to death. AB was interested, but in our initial conversation, she frequently veered to her consideration of medical aid in dying. She was vexed by the ALS palliative care team at her large healthcare system, who had told her she did not yet have a prognosis of fewer than six months to live. They said she must progress

further, as AB recalled, “for *them* to be comfortable.” They required a significant event such as aspiration or hospitalization before reevaluating her prognosis. AB cried as she explained this to me.

Given that AB was focused on aid in dying, did not appear distressed or anxious about her death, and her angst was tied to denial of the control she desired to time her death—we did not proceed with ketamine-assisted therapy. I prioritized her aid-in-dying wish and spoke with her ALS team. They reevaluated her condition and agreed that her deficits were progressing at such high velocity that she indeed had fewer than six months to live and was eligible for a clinician-assisted death—as long as she maintained the capacity to self-ingest the medications.

AB began a thoughtful and purposeful three weeks of connection with her loved ones. With her daughter’s help, she completed a series of birthday cards for her granddaughter. Days later, she took the medications to die.

Patient AC

Charlotte Charfen, MD.

Fusion Medicine & Wellness. Hawaii.

AC was a 75-year-old female with multiple myeloma. She reached out to me as an aid-in-dying physician. She came well prepared, with full knowledge of the law and a copy of *A Patient Guide to Medical Aid in Dying*,¹⁶ with color-coded tabs and

text highlights. She had a well-thought-out plan and multiple layers of support. It felt like she was trying to prove why she deserved to die on her own terms. I perceived she needed to tell her story. She did not seek me out for ketamine therapy, just for aid in dying.

Nevertheless, AC told me she had significant “existential distress” about dying. I offered ketamine-assisted therapy for this, as an adjunct to her aid-in-dying process. She accepted, and did the prep and integration with her therapist, who is trained in psychedelic-assisted therapy but not in end-of-life care. AC established her intentions: more peace in her life, decreased anxiety, and a sense that her family would be OK without her. The first ketamine session was in her bedroom, in a lovely recliner, surrounded by her books, family photos, and plants. I started with a low dose of 0.5mg/kg, 30mg intramuscularly. Her first words were, “I feel so complete.” After the session, we discussed the journey she had just experienced. Her brother had committed suicide, and she gained empathy for his suffering and compassion for her own. She’d never seen herself as a joyous person, but she now saw her 75 years of life as pure joy. She imagined that when she died she would go back to stardust. Most significantly, her “existential distress” and anxiety faded.

AC asked for a slightly higher dose for the second session, three days later. I administered 45mg intramuscularly. In the post-session debrief, the first thing she told me

was, “I know now that it’s all right to go.” Her journey had been full of color and light, in a forest. Her ashes were there, even though she desired to have them scattered in the ocean. She said, “Whatever my family decides will be OK.” She concluded that she’d take the aid-in-dying medications in six weeks. “It’s been enough,” she said. “I’ve done enough. I am enough.”

A week before AC’s aid-in-dying day, her son called to say she’d had a dramatic downturn. He thought it was time for her to take the medications to die. When I came to the house it was clear she had entered active dying. She recognized and understood me as I bade her goodbye but did not have the mental acuity (capacity) needed to proceed with a medically hastened death. I carefully explained that to AC, within the realm of her understanding, and she seemed calm about the conclusion. I told her children that aid in dying was no longer an option and that their mother was dying rapidly and comfortably, as she had desired. AC died peacefully early the next morning, surrounded by her loved ones, just like she had hoped.

Patient AD

Stewart Anderson, MD.
Insight Ketamine. New Mexico.

AD was a 68-year-old woman who had lived quite a life. She’d been diagnosed with lung cancer and within four months it metastasized to her bones, causing debilitating pain.

When we met at her home in response to her aid-in-dying request, AD was on a spectacular amount of opiates, yet she’d been bedbound for weeks due to metastasis to her hip. I discussed the analgesic potential of ketamine therapy and, when she agreed, I returned that day and administered a relatively low dose of 30mg IM, about 0.5 mg/kg.

AD’s family joined the session, and we sat and listened to some poetry and music. It was beautiful to see her face relax and smile as she was finally free of pain. At that dose, she was calm and comfortable but still conversant. After I left, AD’s son carried her out to their back porch. It was the first time she’d been out of bed, or in the sun, in weeks. She sang as the sun shined on her face. Pure joy.

AD’s pain remained well controlled (the analgesic effect of ketamine often lasts longer than its pharmacokinetics imply¹⁴)—or maybe she was just happier having had the ketamine and feeling the sun on her face one last time. She continued with her plan for aid in dying. I was at her side as she took the medications a few days later, surrounded by her family. They were so grateful to have those days with her.

Patient AE

Lucinda Grande, MD.
Pioneer Family Practice. Washington.

AE was a 71-year-old male, hospitalized with multiple myeloma and severe pain from an epidural and

other abscesses. He also had unremitting myeloma-associated bone pain not controlled by intravenous opioids. AE's oncologist contacted me to consider ketamine therapy for pain control. Low-range oral dosages of ketamine often produce analgesia without significant dissociative or psychedelic experiences.¹⁷ I started him on 8mg orally four times daily. This markedly reduced his pain. He rapidly reduced his opioid consumption; could think clearly and walk steadily; and, gratefully, went home.

I continued AE on oral ketamine 32mg daily and oxycodone 30mg per day, which controlled his pain. He resumed house chores, dined at restaurants, and attended his granddaughter's Christmas program. With the relief of his symptoms and improved quality of life, AE decided to resume chemotherapy. His long-standing thoughts about medical aid in dying—exacerbated by his lengthy bout with uncontrolled pain—faded into the background.

AE tolerated aggressive chemotherapy with minimal nausea. With the myeloma under better control, he was able to ride his bicycle to the local farmer's market even during chemotherapy cycles. Over the next two years, we intermittently tried to decrease his ketamine dose, but his pain returned each time. We gradually adjusted his dose to one 16mg capsule four times daily, with low-dose oxycodone supplementation.

AE remained comfortable and ac-

tive for two and a half years after I first started him on ketamine. Then, although his pain control remained high, his chemotherapy failed. Severe fatigue drastically limited his activities and quality of life. He had thought about medical aid in dying since the onset of his myeloma years before—but had only considered it as a potential tool with no specific timeline. Ketamine therapy had clearly extended his life and its quality—and postponed his thoughts about hastening death. Now, AE asked me to help him qualify for aid in dying, and I agreed. But he thought he still had significant time to live and was in no hurry to take medications to die.

AE's disease process advanced rapidly and he began receiving IV steroids and fluids at home for comfort. He asked to move forward promptly with the aid-in-dying plan. We initiated the process, but during the then-15-day waiting period he began sleeping a lot, hardly eating, and his mental acuity declined. Within days, AE entered active dying. His wife expressed appreciation for his years-long symptom control, and for my willingness to support his aid-in-dying goal. His feeling of control over the timing of his death provided significant comfort during his final days.

DISCUSSION

Studying ketamine-assisted therapy in the context of aid in dying is like studying a blue moon on a cloudy night—an obscured view of



a rare occurrence. Ketamine therapy at the end of life is itself unusual, aid in dying equally so. So ketamine therapy in the context of aid in dying is to multiply a rarity. Viewed together, there are so many variables to consider that cause and effect, or mechanisms of effect, are nearly impossible to ascertain. Is a “result” due to pain control or relieved depression? If a patient’s death anxiety decreases, was that a pharmacologic effect, increased clinician attention and ritual, or both? “Benefits” themselves have yet to be clarified: When ketamine leads a patient to less anxiety about their impending demise, that may lead away from an aid-in-dying completion or toward it. Which is the desired outcome? Or is it neither? Is there a preferred effect? Or is the goal more imprecise—something like, “as long as the

patient reaches improved clarity, that’s good”?

Add to these uncertainties the very small number of presently known cases of ketamine-assisted therapy specifically in the aid-in-dying context, and it would be entirely reasonable for aid-in-dying clinicians to throw up their hands and delay any discussions until better data are in. Yet the discussions have begun. The goal of this article is not to resolve questions but to attempt a framework in which anecdotes may lead to improved understanding and, hopefully, increased research and analysis.

One could argue that aid-in-dying clinicians should look at the more extensive data on ketamine for hospice patients, end-of-life patients, or palliative care in general. But while those still-limited studies

have generally shown promising potential,¹⁸ aid-in-dying patients are likely unique in their end-of-life needs, psychologic and social profiles, proximity to death, and other factors still poorly delineated. Just as pediatricians often remind other clinicians that children are not just smaller adults, aid-in-dying clinicians must remind others that aid-in-dying patients are not merely end-of-life patients who die more quickly.

To focus on the few cases of ketamine-assisted therapy we have in front of us, some general principles can be considered as a starting point toward knowledge that may still be years away.

Table 1 shows some commonly known effects of ketamine-assisted therapy, with subcategories of aid-in-dying outcomes.

TABLE 1: POTENTIAL OUTCOMES OF KETAMINE FOR PATIENTS CONSIDERING AID IN DYING

Ketamine therapy effect	Patient's aid-in-dying desire/completion
Improved pain/symptom management	
	No change in aid-in-dying desire/completion
	Decreased aid-in-dying desire/completion
	Increased aid-in-dying desire/completion
Improved acceptance of death and/or decreased terminal anxiety	
	No change in aid-in-dying desire/completion
	Decreased aid-in-dying desire/completion
	Increased aid-in-dying desire/completion
Relief of depression	
	No change in aid-in-dying desire/completion
	Decreased aid-in-dying desire/completion
	Increased aid-in-dying desire/completion
No effect	
	No change in aid-in-dying desire/completion
	Decreased aid-in-dying desire/completion
	Increased aid-in-dying desire/completion

Table 1 illustrates that all outcomes can occur with all ketamine effects. This allows a nonjudgmental framework that uncouples ketamine therapy in the aid-in-dying context from a “desired” result. This, we believe, is a hallmark of general best practices in aid-in-dying care: Clinicians provide options, without a preferred result other than that the patient, when possible, achieves *their desired outcome*.

Patient AA had both internal and external (his sangha) conflicts about aid in dying, resulting in significant anxiety. During and following three sessions of ketamine-assisted therapy, he experienced markedly decreased existential angst and increased acceptance of his death. This led to diminished aid-in-dying ambivalence, and he completed the act. But one might easily imagine an identical patient who, with decreased anxiety about dying, lost their inclination to hasten their death. Decoupling a desired aid-in-dying outcome from the therapy increases the probability that ketamine-assisted treatment will lead to the major goal of aiding patients to reach their autonomous desires, whatever they may be—hopefully with increased clarity.

End-of-life ketamine-assisted therapy is often lauded for helping patients work through their anxiety and fear of dying. But there's another aspect, ketamine's powerful pain-mitigating properties. Patient AD, desiring aid in dying at least partially because she was unable to move from bed due to pain from a hip metastasis, had such significant relief after a single ketamine injection that her son carried her to the back porch where she "sang as the sun shined on her face. Pure joy." Yet days later, with still minimal pain and still delighting in the sun, she took medications to die. Again, one might easily imagine a patient who, relieved of pain, loses their inclination to hasten death—a different but still autonomous out-

come. Yet this patient's experience contradicts an oft-heard claim that a patient's choice of aid in dying indicates a failure of palliative care. AD's inclination toward aid in dying, it turned out, was not just related to poor pain control, since her wish persisted after that pain was minimized. In her case, aid in dying was not a failure of palliative care, but a success of her autonomy.

Ketamine clinicians working in the aid-in-dying context might find themselves in unpredictable situations. Patient AB requested ketamine therapy based on her distress from being turned down for aid in dying by her ALS team. Rather than address her existential angst and anger via ketamine treatments, the clinician wisely saw an opportunity to remedy the underlying medical situation. He approached the ALS team with new information about the rapid progression of her illness. They reconsidered their prior prognostic hesitation and qualified the patient for aid in dying, which she completed. An end-of-life clinician offering ketamine therapy in the aid-in-dying context, of course, must not lose track of the origins of the patient's dilemmas. Some may be relieved by addressing the patients' autonomous rights as much as their fear of death.

Ketamine clinicians report that it can rapidly improve end-of-life "existential distress." Dr. Anderson, who described ketamine's analgesic properties for the patient with hip pain, also notes, "I can say with confidence that ketamine changes peo-

ple's relationship with death. They see and feel it during the experience and move into a beautiful place of consciousness." Dr. Charfen's patient AC achieved a marked reduction in her self-described existential distress. With increased comfort about dying, she scheduled her aid-in-dying day—but died before that came. As Dr. Charfen noted, not taking aid-in-dying medications as AC had planned was barely relevant. "AC died peacefully early the next morning, surrounded by her loved ones, just like she had hoped."

Each case history in this article can lead to more questions as much as clarity about ketamine-assisted therapy in the aid-in-dying context:

- These patients were treated in the lead-up to their potential aid-in-dying day. For example, Dr. Fratkin observed that patient AA "...became clear that aid in dying should be his route to death ... A week later, (he) followed through with that plan." What if it had been that same day? If a patient requests a ketamine session *on their aid-in-dying day* (decreased anxiety, understanding of death, decreased pain, etc.), might the ketamine-induced dissociative effect negate the patient's final decision-making capacity to proceed with aid in dying? Patients taking opiates or sedatives are not typically denied decision-making capacity based solely on those medications. Might a psychedelic substance, though, be treated differently by clinicians or, should it come to that, the courts?
- How do the effects of ketamine-assisted therapy change as proximity to death shortens?
- What criteria make a patient considering aid in dying a candidate for ketamine-assisted therapy? Are the criteria the same as for all end-of-life patients?
- What is the "best" ketamine dosage and route in this context? How variable is the range?
- How many sessions are ideal, if time before death allows? At what intervals?
- Most significantly: In the aid-in-dying context, how might the extensive time commitment by the clinician(s) and patient in "typical" ketamine-assisted therapy be modified?
- Can the drug be safely administered without full monitoring during the dissociative time by experienced clinicians?
- Will the effects be decreased if not accompanied by extensive and skilled pre- and post-session debriefings?
- Might the drug be used alone in rapidly evolving aid-in-dying situations (or even those less rapidly evolving, but where clinician time commitment isn't available)?

- What is the appropriate training or experience needed by a clinician utilizing ketamine-assisted therapy in the aid-in-dying context—for both ketamine and aid-in-dying clinical practices?

CONCLUSION

Ketamine currently has several advantages over other psychedelic substances in the end-of-life context. But while its use in that clinical milieu is increasingly studied, it is still relatively new and needs further exploration. Organizations like the Ketamine Research Foundation are making inroads with present FDA/IRB-approved studies that include investigative tools such as the End of Life Inventory (ELI) to assess the effects of ketamine therapy.¹⁹

Good data is even less available for ketamine-assisted therapy in the narrower realm of aid-in-dy-

ing care. Further examination with more extensive case reports and, if/when possible, controlled studies are well warranted. In the interim, sharing information and case reports will open discussion, help guide additional clinical experience, and improve therapies.

FINANCIAL DISCLOSURES AND POTENTIAL CONFLICTS OF INTEREST:

Lonny Shavelson, MD: No conflicts.

Michael Fratkin, MD: President of the Institute for Rural Psychedelic Care; provider of ketamine-assisted therapy.

Charlotte Charfen, MD: Fusion Medicine & Wellness; provider of ketamine-assisted therapy.

Stewart Anderson, MD: Insight Ketamine; provider of ketamine-assisted therapy.

Lucinda Grande, MD: Provides educational consulting for Peninsula Compounding Pharmacy.

Angelique Loscar, MBA: No conflicts.

REFERENCES

1. Marks M, Kious B, Shachar C, Cohen IG. Introducing psychedelics to end-of-life mental healthcare. *Nat Ment Health*. 2023;1(12):920-922. doi:10.1038/s44220-023-00166-1
2. Raison CL, Sanacora G, Woolley J, et al. Single-Dose Psilocybin Treatment for Major Depressive Disorder: A Randomized Clinical Trial. *JAMA*. 2023;330(9):843-853. doi:10.1001/jama.2023.14530
3. Mitchell JM, Ot'alora G. M, van der Kolk B, et al. MDMA-assisted therapy for moderate to severe PTSD: a randomized, placebo-controlled phase 3 trial. *Nat Med*. 2023;29(10):2473-2480. doi:10.1038/s41591-023-02565-4
4. Holze F, Gasser P, Müller F, Dolder PC, Liechti ME. Lysergic Acid Diethylamide-Assisted Therapy in Patients With Anxiety With and Without a Life-Threatening Illness: A Randomized, Double-Blind, Placebo-Controlled Phase II Study. *Biol Psychiatry*. 2023;93(3):215-223. doi:10.1016/j.biopsych.2022.08.025

5. How Psychedelic Drugs Can Aid Patients at the End of Life. Medscape. Accessed December 7, 2024. <https://www.medscape.com/viewarticle/how-psychedelic-drugs-can-aid-patients-end-life-2024a1000i7e>
6. Heal DJ, Smith SL, Belouin SJ, Henningfield JE. Psychedelics: Threshold of a Therapeutic Revolution. *Neuropharmacology*. 2023;236:109610. doi:10.1016/j.neuropharm.2023.109610
7. Oregon Health Authority : Oregon Psilocybin Services - Access Psilocybin Services : Prevention and Wellness : State of Oregon. Accessed December 7, 2024. <https://www.oregon.gov/oha/PH/PREVENTIONWELLNESS/Pages/Psilocybin-Access-Psilocybin-Services.aspx>
8. Natural Medicine Program - HOME | Divisions of Professions and Occupations. Accessed December 7, 2024. <https://dpo.colorado.gov/NaturalMedicine>
9. Li L, Vlisides PE. Ketamine: 50 Years of Modulating the Mind. *Front Hum Neurosci*. 2016;10:612. doi:10.3389/fnhum.2016.00612
10. Peskin E, Gudin J, Schatman ME. Increased Demand for Ketamine Infusions and Associated Complexities. *J Pain Res*. 2023;16:295-299. doi:10.2147/JPR.S403323
11. WHO Model List of Essential Medicines - 23rd list, 2023. Accessed December 7, 2024. <https://www.who.int/publications/i/item/WHO-MHP-HPS-EML-2023.02>
12. Olofsen E, Kamp J, Henthorn TK, et al. Ketamine Psychedelic and Antinociceptive Effects Are Connected. *Anesthesiology*. 2022;136(5):792-801. doi:10.1097/ALN.0000000000004176
13. Marguilho M, Figueiredo I, Castro-Rodrigues P. A unified model of ketamine's dissociative and psychedelic properties. *J Psychopharmacol Oxf Engl*. 2023;37(1):14-32. doi:10.1177/02698811221140011
14. Peltoniemi MA, Hagelberg NM, Olkkola KT, Saari TI. Ketamine: A Review of Clinical Pharmacokinetics and Pharmacodynamics in Anesthesia and Pain Therapy. *Clin Pharmacokinet*. 2016;55(9):1059-1077. doi:10.1007/s40262-016-0383-6
15. Iglewicz A, Morrison K, Nelesen RA, et al. Ketamine for the Treatment of Depression in Patients Receiving Hospice Care: A Retrospective Chart Review of Thirty-One Cases. *Psychosomatics*. 2015;56(4):329-337. doi:10.1016/j.psych.2014.05.005
16. *Medical Aid in Dying: A guide for patients and their supporters*. American Clinicians Academy on Medical Aid in Dying. Accessed December 12, 2024. <https://www.aadm.org/for-patients-and-families/patientbooklet>
17. Blonk MI, Koder BG, van den Bemt PMLA, Huygen FJPM. Use of oral ketamine in chronic pain management: a review. *Eur J Pain Lond Engl*. 2010;14(5):466-472. doi:10.1016/j.ejpain.2009.09.005
18. Barbosa MG, Garcia GT, Sarin LM, Jackowski AP. Efficacy and safety of ketamine for the treatment of depressive symptoms in palliative care: a systematic review. *Braz J Psychiatry*. 2023;45(2):182-195. doi:10.47626/1516-4446-2022-2876
19. Research - Ketamine Research Foundation. January 5, 2023. Accessed December 7, 2024. <https://ketamineresearchfoundation.org/research/>



Academy of Aid-in-Dying Medicine

www.AADM.org

Can you imagine your work
Without the Academy?

[Click to Contribute](#)