KETAMINE RESEARCH INSTITUTE
Clinical Professional Education and Development Programs

KRI Mini-Fellowship Intensive Ketamine Training Program

A Comprehensive Curriculum Overview for Clinicians & Medical Staff

Revised Edition — 2026 · Rev 5.0

AT A GLANCE

Location	Ketamine Research Institute — 5969 Cattleridge Blvd., Suite 104, Sarasota, FL 34232
Format	3-Day In-Person Intensive | Thursday – Saturday, 9:00 AM – 6:00 PM
Dress Code	Casual and comfortable — this is a hands-on, informal setting
Materials	A comprehensive Course Textbook - Tool Kit – KRI Clinical Companion App – Business and Marketing Manuals and 1-year personal mentorship are provided
Curriculum Coverage	Federal and state requirements, DEA and REMS obligations, and the published professional guidance relevant to ketamine practice

About This Curriculum

The KRI Mini-Fellowship Training Program is a three-day in-office intensive followed by a one-year personal mentorship. It integrates didactic instruction, hands-on clinical training in a live infusion suite, and a supervised personal ketamine experience into a single competency-based program designed to prepare graduates to deliver ketamine infusion therapy safely and to measure their own results.

The curriculum is built around three aims: to teach precision dosing and the clinical reasoning behind it; to cover the federal, state and professional guidance that bears on ketamine practice, so that graduates can determine what applies in their own jurisdiction; and to encourage clinicians to contribute to the field through data, scholarship and teaching.

The program is competency-based: certification reflects demonstrated proficiency, not attendance.

Who Can Attend

The Mini-Fellowship trains a multidisciplinary clinical team — physicians (MD/DO), certified registered nurse anesthetists (CRNA), nurse practitioners and physician associates (NP/PA), and registered nurses (RN). All learn the same science and safety core; each also completes a role track that defines the scope boundaries governing their function.

- Active, unrestricted professional license in the state of intended practice
- For clinicians who will order or administer ketamine: DEA Schedule III registration where required by role and state
- Current ACLS certification for any clinician administering or monitoring infusions; BLS and airway training at minimum for all clinical staff
- Airway-management education for moderate sedation, or completion of the program's airway module
- Class size is limited to four clinicians per cohort

Before the Course Begins

Please complete and return your Patient Registration and Brief Medical History forms by email or fax as soon as possible. If you will be receiving an infusion — scheduled on either Day 2 or Day 3 — you will need to arrange transportation (Uber or similar) for that day; you will not be able to drive following your infusion.

DAY 1 — Ketamine Fundamentals, Compliance & Practice Setup

Thursday | 9:00 AM – 6:00 PM

Day 1 establishes the scientific and regulatory foundation of the course — where ketamine came from, why the standard protocol falls short, and what it takes to run a safe, compliant, and effective infusion practice from day one.

MODULE 1 The Scientific Journey of Ketamine

- From anesthetic origins (1960s) to FDA approval
- The 1994 Krystal study and the birth of the 0.5 mg/kg protocol
- Landmark antidepressant studies (Berman 2000, Zarate 2006)
- The six-infusion standard mg/kg protocol and its real-world shortcomings and limitations
- Because ketamine was repurposed without FDA-validated psychiatric dosing trials, the inherited protocol lacks the precision clinical application demands
- Why the effectiveness and safety of standard ketamine infusion therapy may diverge meaningfully from widely held assumptions

MODULE 2 Clinical Excellence, Regulatory Compliance & Medical-Legal Standards

- APA, ASA, FSMB, and DEA frameworks; the APA consensus as the de facto standard of care
- ASRA/AAPM/ASA consensus guidelines (2018): chronic-pain and acute-pain standards for indications, contraindications, personnel, and monitoring
- The ASKP3 Delphi consensus on IV ketamine for depression
- AANA/APNA Joint Position Statement (2023): interdisciplinary collaboration, CRNA and PMHNP scope boundaries, referral requirements
- The Spravato REMS architecture — certified settings, enrollment, post-administration monitoring, and the prescriber-onsite requirement — as a transferable model for off-label ketamine governance
- State medical-board regulations taught through the all-state method: prescriber requirements, clinic-registration mandates, prohibited practices, and scope-of-practice boundaries
- Patient selection: ideal candidates vs. contraindications
- Expanded ASRA contraindication screen: elevated intracranial/intraocular pressure, severe hepatic disease, poorly controlled cardiovascular disease, active psychosis
- Mandatory baseline testing per ASRA 2018: ECG for cardiovascular-risk patients; LFTs for hepatic dysfunction or anticipated high-dose or frequent infusions
- Anesthesiology-standard documentation across all three infusion phases
- Documentation toolkit: standardized intake; PHQ-9, BDI-II, GAD-7, PTSD Checklist; pain instruments (NRS, Brief Pain Inventory, Oswestry Disability Index); DEA log requirements
- How to develop formal ketamine consultation and collaborative-care agreements

Informed Consent, Ethics & Medical-Legal Standards

- Consent as a documented conversation, not a signature: the KRI 15-section consent framework, including explicit off-label disclosure, compounded-formulation risk, realistic outcome expectations, and the identity and credentials of the administering clinician
- Medical ethics applied to off-label psychiatric care: autonomy, beneficence, non-maleficence, and justice, with attention to vulnerable psychiatric populations
- Scope-of-practice boundaries for non-psychiatrist practitioners and recommended psychiatric-clearance and collaboration criteria
- Coordination-of-care standards: formal protocols for communicating with the patient's existing mental-health team
- Malpractice exposure: off-label prescribing liability and standard-of-care documentation as legal defense

MODULE 3 DEA Compliance & Controlled-Substance Management

- Controlled-substance logbook mastery
- Vial serialization, inventory, and secure storage (21 CFR 1301.75)
- Waste management: the two-person integrity rule and DEA Form 41
- Procurement, account setup, and the SORS reporting system
- DEA enforcement landscape: recent prosecutions involving illegal ketamine administration, distribution, and fraudulent billing — and the risk-mitigation strategies that follow
- PDMP integration: mandatory query at intake and quarterly thereafter, doctor-shopping identification, and coordination with state prescription monitoring programs

MODULE 4 Setting Up Your Infusion Practice

- Infusion-center layout and suite design (approximately 120 sq ft per suite)
- Staffing: qualified practitioner plus RN; ACLS and airway training

- Required equipment: monitors, syringe pumps, crash cart, oxygen
- Monitoring: continuous pulse oximetry with audible alarms; continuous ECG for every patient; automated blood pressure at ten-minute intervals; end-tidal CO_2 capnography available on site and applied when clinically indicated
- Emergency equipment per ASA: BVM (adult/pediatric), oral/nasal airways, Yankauer suction, AED/defibrillator, advanced airway (laryngoscope, ETT, LMA), antagonists (naloxone, flumazenil), and emergency medications (epinephrine, atropine, vasopressin, amiodarone, nitroglycerin, corticosteroids)
- Personnel: a responsible clinician — physician, or an APRN/NP/CRNA with independent practice authority in that state — on site throughout administration; qualified medical personnel continuously in the room from the start of the infusion until the patient is moved to recovery; a second qualified person monitoring the patient in recovery; an advanced-airway-capable person immediately available. Where a state requires a physician on site, the state requirement governs
- Start-up cost estimates and an operational-readiness checklist
- Clinic registration and state compliance: registration with state medical boards where required, renewal cycles, and audit/inspection readiness

MODULE 5 The Future of Ketamine Therapy — Why Standards Matter

- Real-world outcomes vs. clinical-trial success rates
- The risks of commercialization, telehealth prescribing, and regulatory backlash
- FDA warnings on compounded ketamine and telehealth: adverse-event reports including respiratory depression at twice anesthetic blood levels, and the risks of unsupervised at-home use
- Why 0.5 mg/kg fails as a one-size-fits-all solution
- The shift toward plasma-concentration targeting and precision medicine
- Understanding the regulatory requirements in your own state, and how meeting them supports referral relationships

◆ Clinical Session: Introduction to the Infusion Room (Day 1, afternoon)

The infusion room is the operational core of a ketamine practice. How it is designed, equipped, and managed directly shapes clinical outcomes, patient safety, and the therapeutic experience. This session establishes the foundational competencies every KRI-trained clinician must master before administering their first independent infusion.

- The full infusion encounter walked end to end in the live suite — from pre-visit intake to next-day follow-up
- IV access, pump programming, and infusion management — hands-on
- Airway assessment and emergencies; airway devices (BVM ventilation, LMA, ETT)
- ASA formal airway evaluation: Mallampati class, thyromental distance, neck anatomy, jaw mobility, BMI, and history of difficult intubation — documented as a mandatory pre-procedure component
- Monitoring: pulse oximetry, continuous ECG, blood pressure at ten-minute intervals, sedation scoring; capnography when clinically indicated
- Level-of-consciousness assessment: the Ramsay Sedation Scale and the Modified Observer's Assessment of Alertness/Sedation Scale (MOAA/S), with ketamine-specific caveats (eyes may remain open in deep sedation)
- ASA sedation continuum: minimal, moderate, and deep sedation vs. general anesthesia; rescue competency one level deeper than intended; the absence of a pharmacologic antagonist for ketamine
- Pre-infusion time-out: patient identity, dosing parameters, consent check, allergy and medication review
- NPO verification (case-by-case per ASA; mandatory at higher dose ranges per ASRA): 6 hours solids, 2 hours clear liquids
- Set and setting as clinical variables: lighting, music, positioning, staff behavior
- Discharge protocol: Aldrete scoring, two blood-pressure readings ten minutes apart, a psychiatric safety screen including suicidal-ideation assessment before discharge, a minimum of 30–40 minutes of post-infusion monitoring, and written instructions covering medications, alcohol, driving restrictions, and emergency contacts

DAY 2 — Advanced Practice, Pharmacokinetics & Supervised Clinical Training

Friday | 9:00 AM – 6:00 PM

Day 2 moves into the pharmacological science that separates a KRI-trained clinician from the standard clinic — including the critical variables that determine whether a patient responds or drops out. The afternoon is the peer-to-peer supervised practicum.

MODULE 6 Pharmacokinetics & Plasma Concentrations

- Why weight-based dosing produces unpredictable plasma levels

- Volume of distribution, metabolism, and elimination variables
- Defining Cmax, MEC, and MTC — the therapeutic window for plasma concentration
- Moving from mg/kg dosing to targeted plasma concentrations (ng/ml)
- Adjusted body weight vs. ideal body weight vs. total body weight: adjustment for BMI ≥ 30, and the evidence for reduced hemodynamic complications

MODULE 7 Mechanism of Action — The Master Molecule

- Racemic ketamine: (S)- and (R)-ketamine enantiomers and active metabolites
- NMDA receptor blockade, the glutamate surge, and the neuroplasticity cascade (BDNF, mTORC1)
- Ketamine as a broad-spectrum drug — activity at more than 20 receptor and target sites
- New models of depression: depression as a disconnection syndrome — DMN, SN, and CEN network dysfunction
- Ketamine for chronic neuropathic pain: central sensitization reversal, descending modulatory pathway enhancement, and spinal cord processing

MODULE 8 Mastery of Delivery & Risk Management

- IV, IM, intranasal, and oral routes — bioavailability, safety, and clinical trade-offs in efficacy
- Neurological, cardiovascular, respiratory, and hepatic risk profiles
- Hepatic monitoring: baseline and post-infusion LFTs for patients with liver dysfunction, chronic hepatitis, alcohol-use history, or anticipated high-dose or frequent infusions
- Cardiovascular screening: baseline ECG for high-risk patients to exclude uncontrolled ischemic heart disease (ASRA 2018)
- Managing dissociation and sympathomimetic effects in real time
- Preemptive and rescue medication protocols: benzodiazepines for anxiety or dysphoria, antiemetics, antihypertensives — evidence basis and limitations
- Airway issues: avoidance, recognition, and management
- Long-term risks: differentiating therapeutic use from ketamine misuse
- Chronic-exposure monitoring: cognitive function assessment, lower urinary tract symptom screening for cystitis risk, and substance-misuse surveillance
- Substance-abuse risk stratification: KIRT-S, modeled after the Opioid Risk Tool, with urine toxicology screening, PDMP integration, and monitoring for multi-provider ketamine seeking
- The KRI ketamine-specific REMS protocol: the KRI Clinical Companion, KIRT-S, and PMP review integration

◆ Clinical Practicum: Peer-to-Peer Supervised Infusion Training (Day 2 and Day 3, afternoons)

This is the defining feature of KRI hands-on training. Attendees do not administer ketamine infusions to patients — they administer infusions to one another, under the direct supervision of senior KRI clinicians and with full safety protocols in place. By both performing an infusion from start to finish and serving as the recipient, each attendee develops complete procedural fluency and personally experiences the phenomenology of a ketamine infusion. No patients are involved in the practicum. The practicum runs across both the Day 2 and Day 3 afternoons: with a cohort of four, two attendees receive an infusion on Day 2 and two on Day 3, and each infusion runs 1.5–2 hours — which is why those days run long.

- Each attendee, in turn, performs every phase of the infusion encounter on a fellow attendee — pre-procedure evaluation, IV access, pump programming, monitoring, sedation scoring, real-time documentation, and discharge
- Hands-on management of the complete infusion sequence: dose selection, rate titration, and real-time monitoring
- Adverse-event recognition: hypertension, tachycardia, emergence reactions; airway assessment and airway devices
- Defined stopping criteria: BP above 180/100 or HR above 110, respiratory distress, SpO_2 decline, severe behavioral disturbance, cardiac-rhythm changes
- Behavioral-emergency management: acute agitation, severe dissociation, psychotic symptoms — de-escalation techniques and pharmacologic intervention
- Therapeutic presence — knowing when to intervene and when to hold space; documentation, procedure notes, and post-infusion debriefing
- Contemporaneous-documentation drill: real-time recording of all monitored parameters before, during, and after the infusion

The Personal Ketamine Experience (within the peer practicum, Day 2 or Day 3)

Serving as the recipient in the peer practicum gives each attendee firsthand exposure to the ketamine state — a non-ordinary state of consciousness that can be disorienting, emotionally intense, and for many profoundly meaningful. Clinicians who have personally experienced this state are better equipped to prepare, guide, and support their own

patients through one. Each attendee is scheduled to receive on either Day 2 or Day 3. Receiving an infusion is voluntary and separately consented.

- A supervised low-dose ketamine infusion in a controlled clinical setting, administered by a fellow attendee under the direct oversight of a senior KRI clinician
- Firsthand exposure to dissociation, time distortion, and altered perception
- Structured post-infusion reflection on clinical implications and empathic insight
- Practical training in debriefing and integration techniques for use with your own patients

Practicum safeguards

- No patients: all practicum infusions are administered between consenting attendees under direct senior-clinician supervision
- Screening and consent: every attendee who will receive an infusion undergoes the same medical-eligibility screening and informed-consent process required of any patient
- Voluntariness: receiving an infusion is entirely voluntary; declining has no effect on certification or on participation as an administrator
- Supervision and rescue: a senior KRI clinician directly supervises every administration, with full monitoring and emergency equipment immediately available
- Integration: a structured integration protocol and a written reflective assignment follow the experience and feed the competency portfolio

DAY 3 — Precision Medicine, Targeted Infusions & Putting It All Together

Saturday | 9:00 AM – 6:00 PM

Day 3 integrates everything through the precision-medicine methodology that defines KRI practice, and hands you the practical tools you will use on day one in your own infusion suite.

MODULE 9 Advanced Pharmacokinetics & Target-Determined Infusions

- The three-compartment pharmacokinetic model: distribution, accumulation, elimination
- The KRI 800-infusion dataset: identifying ED50 and ED75 therapeutic plasma concentrations
- Correlating infusion rate, receptor occupancy, and Cmax
- Introduction to the KRI Clinical Companion for real-time plasma targeting
- ASRA pain-specific dosing parameters: boluses up to 0.35 mg/kg, infusion rates of 0.5–2 mg/kg/hr, a minimum of 80 mg over two or more hours for chronic pain, with condition-specific evidence grades (CRPS moderate; spinal-cord-injury pain weak; others limited)

MODULE 10 Transforming Your Approach: The Critical Variables

- From total body weight to adjusted body weight dosing
- The five critical variables: mass, metabolism, medications, morbidities, mindset
- Medication reconciliation in treatment-resistant depression: the realities of polypharmacy
- Key pharmacologic roadblocks: benzodiazepines, lamotrigine, antipsychotics, opioid antagonists
- Drug–drug interaction management: opioid co-administration and oversedation, MAOI considerations, sympathomimetic potentiation, CNS-depressant synergy

MODULE 11 Metabolism, Genetics & Comorbidity Management

- CYP450 modulators, genetic variants (BDNF, MTHFR, COMT, OPRM1), and dosing adjustment
- Pharmacogenomic testing in clinical practice
- Metabolic comorbidities: MTHFR, hypotestosteronemia, hypomagnesemia, carnitine deficiency
- The KRI Clinical Companion: automated safety checks and pre-infusion optimization

MODULE 12 Precision Medicine in Practice — The SOMA Framework

- SOMA: Selection, Optimization, Monitoring, Adjustment — the full clinical workflow
- Standard vs. advanced eligibility matrices and red-flag identification
- Step-by-step patient optimization: correcting MTHFR, medications, hormones, and nutrients
- Tolerance, tachyphylaxis, and ketamine-induced glutamate excitotoxicity
- Continuation and discontinuation framework: the non-responder protocol, frequency tapering (twice-weekly to weekly to discontinuation), and ongoing risk–benefit documentation
- Concurrent psychotherapy integration and coordination with the patient's existing mental-health team

MODULE 13 Personalized Dosing & Treatment Trajectories

- Diagnosis-specific plasma-concentration targets: anxiety and PTSD, depression and bipolar depression, neuropathic pain
- Navigating the four levels of consciousness from anxiolysis to reorientation
- The three-stage treatment trajectory: induction, reinforcement, and maintenance
- Using real-time biometrics (HR, HRV, respiration, HRRT) to guide and refine therapeutic plasma concentrations
- Response measurement: PHQ-9, BDI-II, and MADRS at every session; pain outcome criteria (≥ 30% reduction, ODI) per ASRA; systematic documentation of cumulative response

MODULE 14 Putting It All Together: Tools, Quality & Professional Accountability

- Point-of-care rapid-reference guides and standardized clinical protocols
- Setting realistic patient expectations and explaining the ketamine journey
- The KRI Clinical Companion: personalized dosing, medication safety, and real-time clinical intelligence
- Standard-operating-procedure development: site-specific protocol creation as both clinical best practice and medicolegal defense
- The KRI Mentorship Program: ongoing case review, urgent support, and professional development

Quality, Safety & Business Compliance

- Adverse-event reporting: content specifications, retention (minimum three years), reportable events (airway intervention, EMS transport, hospitalization, death), and FDA MedWatch reporting for serious events
- Quality-assurance framework: outcome-tracking methodology, complication-rate monitoring, patient-satisfaction metrics, peer review, and protocol-refinement cycles
- Cash-pay practice compliance: anti-kickback statute awareness and appropriate financial disclosures to patients
- Marketing compliance: evidence-based advertising only, avoiding misleading efficacy claims (FDA/FTC), and appropriate representation of off-label status
- Continuing competency: CME and credentialing considerations; ketamine-specific malpractice-insurance verification, scope-of-practice alignment, and interdisciplinary referral documentation (AANA 2023)

MODULE 15 Competency Assessment & Certification

A formal competency assessment records what each KRI graduate has demonstrated across the clinical and regulatory domains covered in the course, producing documentation a graduate can submit when seeking credentialing.

- Written examination: pharmacology, regulatory frameworks, protocols, emergency management, and documentation requirements
- Clinical skills demonstration: airway assessment performance, patient evaluation competency, monitoring proficiency, and emergency response capability
- Case-based evaluation: patient selection decisions, dose calculation, informed-consent process execution, and discharge-readiness determination using Aldrete scoring
- Documentation competency: medical-record review, adverse-event log completion, and contemporaneous recording accuracy
- Formal competency documentation package: an individualized certificate of completion with competency attestation, suitable for submission to state medical boards, hospital credentialing committees, and malpractice insurance carriers

◆ Clinical Practicum: Peer-to-Peer Supervised Infusion Training, continued (Day 3, afternoon)

- Continued peer-administered, supervised infusion practice — the remaining attendees receive their infusions today
- Applying precision-medicine principles to live infusion scenarios between attendees
- Series-progression planning: adjusting subsequent infusions based on response data
- Complete discharge-protocol execution: Aldrete scoring, dual blood-pressure readings, psychiatric safety screen, written post-procedure instructions, and responsible-adult transport confirmation

WHAT YOU TAKE HOME

Clinical Resources	Ongoing Support
✓ Comprehensive Course Workbook ✓ All forms, consents, and DEA documentation ✓ Assessment tools (PHQ-9, GAD-7, PTSD Index, Beck Depression, Oswestry Disability Index) ✓ Ketamine infusion records, DEA-compliant logbooks,	✓ KRI Certification as a qualified ketamine therapy clinician ✓ Formal competency attestation for state medical board submission ✓ Access to the KRI graduate referral network

Adverse Events Logbook, and REMS Protocol ✓ Trained and Certified Clinician logo for your website or practice materials ✓ State medical board compliance checklist and registration guidance ✓ Standard Operating Procedure templates for every phase of treatment ✓ ASA airway assessment documentation templates ✓ Aldrete discharge scoring forms	✓ Year-long personal mentorship with Dr. Grass ✓ Access to the KRI Clinical Companion app (2026) ✓ KIRT-S: Ketamine Infusion Risk Assessment Tool ✓ Invitation to the KRI graduate discussion board ✓ KRI Business Guide and Marketing Manual ✓ Regulatory update alerts as new state guidelines are adopted

The One-Year Personal Mentorship Program

The mentorship is the bridge from knowledge to safe independent practice and from practitioner to expert. It pairs the personal, responsive support that defines KRI — direct access to us for clinical questions and group updates when the field moves — with a defined longitudinal structure, milestones, and a twelve-month competency re-assessment, so the year functions as a genuine fellowship.

Structure and Touchpoints

Phase / timing	Focus	Required deliverables & milestones
Onboarding (Weeks 0–4)	Launch the practice safely	State Compliance Worksheet completed & verified; SOPs adopted; suite-readiness checklist signed off; first-infusion plan reviewed with mentor
Proctored first infusions (Months 1–2)	First independent cases with backup	Mentor reviews the trainee's first five cases (records + debrief) before fully independent practice; rescue plan confirmed
Monthly case reviews (Months 1–12)	Clinical judgment & red-flag mastery	Submit de-identified cases each month; attend monthly review; log complications and outcomes
Quarterly milestones (M3/M6/M9/M12)	Track competency growth	Quarterly QA review of outcomes, complication rates, and documentation; protocol-refinement actions
Group meetings (as triggered)	Field currency	Attend Zoom updates when developments arise; receive regulatory alerts
Urgent support (continuous)	Safety net	Same-day mentor access for urgent clinical questions
12-month capstone	Demonstrate expert-level practice	Re-assessment + scholarly/innovation project; renewal of competency attestation

Mission and Educational Philosophy

The ketamine field built an industry before it finished the science. The standard 0.5 mg/kg, six-infusion protocol was borrowed from a small number of early studies (Krystal 1994; Berman 2000; Zarate 2006) and promoted to a de facto protocol without a defined dose-response curve for any single psychiatric indication. Opening a “ketamine clinic” requires only a business license; delivering safe, effective, defensible ketamine therapy requires a pharmacological and procedural education most clinic owners never received.

KRI closes that gap. The program moves the clinician from a one-size-fits-all model to a precision-medicine model grounded in plasma-concentration targeting and wrapped in anesthesiology-grade safety and documentation. The goal is not to teach a clinician how to hang a bag of ketamine — it is to make them understand exactly what the infusion is doing, why, and how to individualize it, so that they can practice with confidence and explain their reasoning to patients and colleagues.

SCOPE OF THE CURRICULUM

This curriculum covers the federal, state and professional guidance that bears on ketamine practice, so that graduates can identify and meet the requirements in force where they practice.

Questions?... Ready to Apply?

Email us at training@ketamineinstitutetraining.com or visit our website at www.ketamineinstitutetraining.com

Class openings fill several months in advance — early application is strongly encouraged.