

MCP SERVER

NO CODE

CLOUD HOSTED

Dose Tapering Scheduler MCP for AI Agents

Creating Safe Medication Reduction Timelines in Clinical Practice

The Dose Tapering Scheduler calculates safe, structured medication reduction timelines. Input a starting dosage, your desired decrement amount, and the time interval between reductions to generate a complete week-by-week plan until the minimum therapeutic threshold is reached.

A+ Quality Score 100/100

medication

tapering

dosage

scheduling

clinical



The connectivity layer between AI and the world's software.



Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.

— Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1)
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at cloud.vinkius.com — connect your AI agent in under 60 seconds.

Dose Tapering Scheduler MCP

3 tools available

Cloud-hosted on Vinkius

Planning a drug taper requires precision; you can't just guess the next dose. This MCP handles the complex math of safely reducing medication over time. It takes your starting dosage, how much you want to reduce it by each time period, and how often those reductions happen. The system then maps out every single step needed—from Week 0 right through to cessation. You get a detailed, downward timeline that keeps the patient safe while ensuring effective dose reduction.

When using this MCP via Vinkius, your AI agent handles all the calculations. It doesn't just spit out numbers; it validates the whole plan first, making sure the parameters you feed it are even medically sound. This lets clinicians focus on the patient and stop worrying about calculation errors. You simply tell your agent what you want to start with, how fast you need to go, and minimum safety limits, and the MCP does the heavy lifting.

Core Capabilities

01 — Generate a detailed weekly reduction timeline

It outputs every step of the dose taper, showing the exact dosage for each week or interval until the minimum target is reached.

03 — Validate medical parameters

The MCP checks your inputs to ensure that the proposed starting dose, decrement amount, and interval are logically consistent for creating a safe taper schedule.

02 — Calculate the total duration and steps

You receive a clear summary detailing the entire process length, counting all necessary reduction steps involved in the plan.

04 — Determine cessation date

It calculates exactly when the dosage will reach zero or the specified minimum threshold, giving you a clear end point for the treatment plan.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/mcp/dose-tapering-scheduler — connect your AI agent in three steps.

- 01 You provide your AI client with three core variables: the initial starting dose, the specific amount to reduce by (the decrement), and the time interval (e.g., every 2 weeks).
- 02 The MCP first runs a validation check on these parameters; if anything is medically impossible or illogical, it alerts you immediately.
- 03 If valid, your agent executes the full schedule generation, returning a detailed, step-by-step timeline and a summary of the overall duration.

The bottom line is that this MCP automates complex pharmaceutical math, giving you a clinically sound taper plan in seconds.

Built For

Pharmacists and Physicians Assistants who manage chronic medication regimens need this. If planning safe dose reductions by hand feels too risky or time-consuming, this MCP is for you.

Clinical Pharmacist

They use this to audit a physician's proposed taper plan, ensuring the decrement steps are smooth and medically defensible before the patient starts reducing medication.

Physician Assistant (PA)

A PA uses this MCP during rounds to quickly generate preliminary tapering schedules for patients needing dose reduction, saving time on complex calculations that usually require manual chart review.

What Changes When You Connect

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- 01** Safety first: The tool validates parameters using `validate_taper_parameters` before generating any schedule, catching potential dosing errors you might miss.

 - 02** Time savings: Instead of cross-referencing clinical guidelines and running complex math manually, your agent generates the entire timeline in a single query.

 - 03** Clarity on duration: Use `get_taper_summary` to get an immediate overview of how long the process will take, helping you set clear patient expectations.

 - 04** Step-by-step detail: The `generate_taper_schedule` tool provides a clean, weekly breakdown. You see exactly what dose is needed at every single reduction point.

 - 05** Improved documentation: Having an instantly verifiable and structured taper plan makes your clinical notes clearer and more defensible.
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Real-World Applications

Adjusting a Long-Term Antihistamine Dose

A patient needs to reduce a medication over several months. You ask your agent for the full plan, using ``generate_taper_schedule``. The result gives you the precise dose needed every 4 weeks until it hits zero, making the transition smooth and safe.

Determining Total Taper Timeline

You need to tell the patient when they can expect full cessation. You run ``get_taper_summary`` and instantly know the process will take 10 weeks with 5 distinct reduction steps, giving you a concrete date for follow-up.

Checking Initial Dosage Safety

Before writing a new order, you aren't sure if the patient's current starting dose is compatible with a rapid reduction. You run ``validate_taper_parameters`` first. It confirms whether your proposed decrement steps are medically sound for this specific patient profile.

Patterns to Avoid

Assuming simple linear reductions

X AVOID

Just writing 'reduce by 2mg every month' on the chart and hoping it works. This ignores complex dosing intervals or minimum thresholds.

✓ INSTEAD

Always use this MCP to run ``generate_taper_schedule``. You input the starting dose, decrement amount, and interval; the tool handles the clinical complexity and ensures safety.

Ignoring parameter validation

X AVOID

Trying to calculate a taper that starts too low or decrements by an amount that doesn't make sense for the patient's weight class.

✓ INSTEAD

Before generating anything, run ``validate_taper_parameters``. This tool confirms if your proposed reduction plan is logically sound and medically viable.

Focusing only on the start and end

X AVOID

Just stating 'Start at 10mg, finish at 1mg' without a schedule. You miss all the intermediate steps that are critical for safety.

✓ INSTEAD

Use ``generate_taper_schedule`` to force the system to calculate every single dose change in between, giving you the full, required weekly breakdown.

The Right Fit

Use this MCP if your job requires calculating a safe, multi-stage reduction of medication dosages over time. Specifically, if you need to know not just *when* it will end, but the exact dose for every single interval (weeks/months), then this is essential. Don't use it if you are simply tracking vitals or logging doses; those are basic charting tasks. Also, don't rely on it for initial dosage determination—it assumes you have a starting point. If your need is just to check if two specific drugs interact, use a dedicated drug interaction checker tool instead.

Dose Tapering Scheduler MCP: Managing Medication Reduction in Clinical Practice

Right now, planning a dose taper is messy. A clinician has to pull up guidelines, write down the starting dose, calculate the first decrement, check if that's safe, then repeat that entire process for every subsequent week or month until they hit the minimum threshold. It's manual, time-consuming, and frankly, high-risk.

With this MCP, your agent takes care of all the math. You tell it the starting dose, the decrement size, and the interval; the tool then generates a complete, step-by-step schedule showing every dosage change required. You get an instant, clinically verified timeline.

Dose Tapering Scheduler MCP: Calculating Total Duration for Patient Care

The biggest manual headache is tracking the total process length. A chart might have dozens of notes, and you're constantly guessing how many steps are involved or when the patient can expect to finish treatment. You spend time calculating 'if we go this fast, will it take 8 weeks or 12?'

Now you run `get_taper_summary`. The system instantly calculates the total duration and lists the exact number of reduction steps needed. This gives you a concrete timeline for patient education and follow-up planning.

Dose Tapering Scheduler: 3 Tools for Dosage Scheduling and Planning

These tools let you generate full dose taper schedules, get a summary of the total duration, or validate any proposed reduction plan.

#	TOOL	DESCRIPTION
01	<code>generate_taper_schedule</code>	Generates a comprehensive week-by-week schedule detailing the dosage at every interval of the reduction plan.
02	<code>get_taper_summary</code>	Computes a quick summary that gives the total number of steps and the overall duration required for the entire tapering process.
03	<code>validate_taper_parameters</code>	Checks your proposed starting dose, decrement amount, and interval to ensure they form a logically sound and medically viable reduction plan.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

- U** I need a full taper schedule starting at 20mg, reducing by 4mg every six weeks, down to a minimum of 2mg.



Medication Taper Plan Summary

Week	Dosage (mg)
0	20
6	16
12	12
18	8
24	4
30	2 (Minimum Dose)

The total process involves 5 reduction steps and is projected to take 30 weeks.

- U** Are these taper parameters safe: starting at 10mg, decrementing by 1.5mg over two weeks, with a minimum of 0.2mg?



Validation Check Results:

The proposed tapering parameters are **valid and medically sound**. They allow for the generation of a structured, logical schedule down to your specified minimum dose.

Recommendation: Continue with generating the full plan.

U What is the whole timeline if I start at 5mg, reduce by 0.5mg every four weeks, until I hit 0.1mg?



Tapering Process Summary:

- **Total Steps Required:** 7 steps of reduction.
- **Estimated Duration:** The process will span approximately 28 weeks.
- The plan is safe and structured, ending at the minimum therapeutic threshold.

Frequently Asked Questions

01 How does the Dose Tapering Scheduler help me create a reduction timeline?

It generates a precise, week-by-week schedule based on your starting dose and desired decrement. You get a detailed map of every dosage level needed until you safely reach zero or your minimum threshold.

02 Is the Dose Tapering Scheduler safe for complex drug reductions?

Yes, it validates all parameters first to ensure they are medically sound and logically consistent. This helps prevent errors that could occur when reducing medication doses manually.

03 What if I need to know how long the whole tapering process will take?

You can ask for a summary, and it instantly calculates the total duration and the precise number of steps required. This is crucial for setting patient expectations during follow-up calls.

04 Does this MCP only work for weekly reductions?

No, it supports various intervals. You can set the reduction to happen every two weeks, four months, or whatever interval is clinically appropriate for your specific medication and patient profile.

05 Can Dose Tapering Scheduler check if my plan makes sense?

Absolutely. Before building a schedule, you can run a validation check that confirms if the starting dose, decrement amount, and interval are logically possible for safe use.

Go Live in 60 Seconds

Get your connection token from cloud.vinkius.com, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT

WHERE TO CONFIGURE



Claude AI

Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint



Cursor

Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint



VS Code

Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"dose-tapering-scheduler": { "url": "..." }`



Windsurf

MCP Settings → `mcp_settings.json` → Add endpoint URL



ChatGPT

Settings → Tools & plugins → Add MCP server → Paste endpoint



Gemini

Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server



Ask ChatGPT



Ask Claude



Ask Perplexity



Ask Gemini



Ask Grok



READY TO CONNECT

Dose Tapering Scheduler is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and
start building. No SDK. No deployment. Just results.

[Start at cloud.vinkius.com](https://cloud.vinkius.com) →

vinkius.com · support@vinkius.com

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