MCP SERVER | NO CODE | CLOUD HOSTED

Divided Dose Scheduler MCP for AI Agents

Calculating accurate medication timing and safety schedules for patients.

The Divided Dose Scheduler MCP takes a total daily medication volume and the required number of doses, then calculates an exact, safe schedule. It generates a full chronological list of every dose's time and volume while also checking that the dosing frequency stays within medically sound parameters.

A+ Quality Score 100/100

medication | scheduling | dosage | healthcare-tools | automation

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vinkius.com/mcp/divided-dose-scheduler

SCAN TO VIEW

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.

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.

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.

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	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	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.

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.

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.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken 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.

Agent Activity

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

FinOps

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

Tool Health

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

Firewall & DLP

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

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.

Divided Dose Scheduler MCP

3 tools available
Cloud-hosted on Vinkius

This MCP lets your AI client calculate complex medication administration schedules. Instead of juggling formulas or cross-referencing multiple guidelines, you input the total daily dose amount and how many times a day it needs to be split. The system instantly builds a clear timeline for every single dose, giving you specific times and volumes for each administration. Beyond just scheduling, it also checks if your planned dosing frequency is medically sound. You connect this MCP through Vinkius, which puts the tool in a catalog with thousands of others. This means your AI client can access sophisticated healthcare calculations right alongside other tools you use daily.

Core Capabilities

01 — Generate full dose timelines

The agent creates a complete list showing the time and volume for every required medication administration.

02 — Determine safe interval timing

You can figure out exactly how many hours should pass between one dose and the next.

03 — Validate dosing safety

The MCP evaluates your input parameters to flag any unsafe or impractical scheduling setups.

One Click on Vinkius — From Prompt to Execution

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

01 Start by providing the total daily dose volume and the number of doses needed.

02 Your agent sends this data to the MCP, which first checks if the parameters are feasible using validate_schedule_parameters.

03 The tool then generates a precise chronological list of all administrations via generate_dose_sequence.

The bottom line is: you provide the inputs, and your AI client gets back a validated, step-by-step dosing schedule.

Built For

This MCP is for anyone dealing with complex medication management. If you're tired of manual calculations or worried about accidentally giving doses too close together, this tool saves you time and reduces risk.

Registered Nurse

Using this MCP to quickly verify a patient's complex medication regimen before administration, ensuring timing matches the physician's orders.

Caregiver

Running through a challenging daily schedule for multiple medications to ensure doses are spaced correctly and safely throughout the day.

Pharmacist

Validating complex dosing instructions provided by doctors against standard safety guidelines to catch potential timing errors.

What Changes When You Connect

01 Avoid manual calculation errors. Use generate_dose_sequence to get a complete, error-free timeline of every single dose.

02 Verify dosing intervals instantly. calculate_interval_duration tells you exactly how many hours must pass between doses without cross-referencing textbooks.

03 Catch safety issues early. validate_schedule_parameters runs checks against known guidelines, flagging unsafe frequencies before a nurse administers the first pill.

04 Save time in high-stakes environments. Instead of calculating schedules across multiple tabs, your agent handles it all in one step.

05 Improve patient adherence. A clear schedule generated by this MCP helps both the caregiver and the patient know exactly what to do and when.

Real-World Applications

A complex chronic care regimen

The nurse needs a full schedule for 150ml daily, split into 6 doses starting at 8:00 AM. She asks her agent to use generate_dose_sequence and gets an instant, precise timeline with specific times (e.g., 8:00, 12:00, 16:00) and volumes for every administration.

Checking unusual dosing requirements

A patient's doctor writes a strange schedule with doses spaced out unevenly. The pharmacist uses calculate_interval_duration to verify if the specified time gaps (e.g., 3 hours, then 5 hours) are safe and appropriate.

High-frequency drug safety review

A care facility staff member inputs a proposed schedule of 24 doses per day into the MCP. validate_schedule_parameters immediately flags a 'Warning: High frequency detected' warning, preventing potential errors.

New medication initiation planning

When starting a patient on a new drug, the doctor needs to know if 100ml spread over 3 doses is appropriate. The agent runs the parameters through validate_schedule_parameters to confirm safety before ordering supplies.

Patterns to Avoid

Manual Interval Calculation

✗ AVOID

A caregiver manually calculates that a dose every 4 hours means an interval of '6/4 = 1.5' hours, forgetting to convert that into the required full time span or check for overlaps.

✓ INSTEAD

Don’t guess. Use calculate_interval_duration first to confirm the exact number of hours between doses. Then, use generate_dose_sequence to build the full timeline using those verified intervals.

Ignoring Safety Limits

✗ AVOID

A user inputs a dose schedule that is technically possible but medically unsafe (e.g., too many doses in a short window), believing only calculation is needed.

✓ INSTEAD

Always run validate_schedule_parameters. This step doesn't just check math; it checks safety boundaries, ensuring the resulting timeline makes real-world sense.

Using Generic Scheduling Tools

✗ AVOID

Relying on general calendar apps that only track time, without accounting for total volume or required dose count.

✓ INSTEAD

This MCP is specific. Input the total daily volume and the number of doses; let generate_dose_sequence handle both the timing and the volume split simultaneously.

The Right Fit

Use this MCP if you need to calculate a precise, time-based medication schedule based on a known total volume and dose count. If your primary goal is simply to track appointments or times without linking them to specific volumes or safety checks, then a standard calendar tool will suffice. However, if the dosing regimen involves complex rules—like needing to check if 24 doses are too frequent—you must use validate_schedule_parameters first. Don't try to piece together a schedule using just calculate_interval_duration; always run generate_dose_sequence after validating the parameters to get a complete and safe picture.

Divided Dose Scheduler MCP for Accurate Medication Dosing Regimen Planning

In manual care settings, creating a dosing schedule is tedious. Staff members often have to switch between patient charts, calculate the interval using complex division, and then manually build out a timeline—all while double-checking that the resulting frequency isn't too high or low for the patient's condition.

With this MCP, you simply give your agent the total volume and dose count. It uses generate_dose_sequence to immediately create a comprehensive list of doses, eliminating manual math and providing a clear timeline seconds later.

Divided Dose Scheduler MCP for Evaluating Medication Safety Feasibility

The biggest risk is assuming the numbers work out. Staff sometimes create schedules that look mathematically correct but violate established medical safety guidelines, leading to high-risk care plans.

This MCP addresses that by running validate_schedule_parameters. It doesn't just calculate; it evaluates feasibility against best practices, giving you immediate warning flags when a schedule is too intense or impractical.

Divided Dose Scheduler: 3 Tools for Medication Dosing Regimens

Use these tools to generate full dose timelines, verify safe intervals between doses, and check if any medication schedule is medically feasible.

#	TOOL	DESCRIPTION
01	`calculate_interval_duration`	Determines the number of hours that must pass between each required medication administration.
02	`generate_dose_sequence`	Creates a full, chronological list showing the exact time and volume for every single dose in the schedule.
03	`validate_schedule_parameters`	Checks if your proposed dosing frequency is medically safe and feasible based on standard guidelines.

See It in Action

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

U Generate a full schedule for 100ml total daily dose, 4 times a day, starting at 6:00 AM.

Dosing Schedule Complete

- **Total Dose:** 100 ml
- **Frequency:** 4 doses
- **Start Time:** 06:00

DOSE	TIME	VOLUME
1	06:00	25 ml
2	12:00	25 ml
3	18:00	25 ml
4	00:00	25 ml

U What's the safe interval if I give medication 6 times in a day?

The calculated interval between doses is **4.0 hours**.

This means you should aim for administrations every four hours to maintain consistent coverage throughout the day. This estimate helps ensure stable blood levels and adherence to standard care protocols.

U Is a schedule of 24 doses per day safe?

Warning: High Frequency Detected

The parameters were evaluated, but administering medication this frequently may be difficult for the patient to follow and could indicate an underlying need for dosage adjustment. Please consult with a pharmacist or physician before proceeding.

Frequently Asked Questions

01 **How does the Divided Dose Scheduler help calculate complex dosing schedules?**

It takes your total daily volume and dose count, then calculates an exact time for every single dose. You get a structured timeline that tells you exactly what to give and when.

02 **Can I use the Divided Dose Scheduler MCP to check if a schedule is safe?**

Yes, this is crucial. The tool validates your plan against safety guidelines, flagging warnings if the dosing frequency is too high or otherwise unsafe for the patient.

03 **What information do I need to start using Divided Dose Scheduler?**

You just need two pieces of data: the total volume of medication given in a full day, and how many times that dose needs to be split up into smaller administrations.

04 **Is this tool better than calculating dosing intervals by hand?**

Absolutely. It handles complex sequencing automatically. Instead of manually figuring out the time gaps, it verifies the safe interval duration and then builds the full schedule for you in one step.

05 **Can Divided Dose Scheduler handle different start times?**

Yes. You specify a start time along with the total dose and frequency, and the MCP generates a perfectly timed chronological list beginning at your specified hour.

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 `"divided-dose-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

Divided Dose 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 →

vinkius.com · support@vinkius.com

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