SteadyStat

SteadyStat:
Structured Home Blood Pressure Insights for Clinicians

Supporting Hypertension Follow-Up With Integrated Home Data

A Structured Home Monitoring Framework

Clinician-Ready Reports

SteadyStat generates standardized summaries designed to fit naturally into clinical workflows, **reducing the need for manual interpretation of home logs**.

Key Metrics Included

Reports highlight morning surges, trough-to-peak differences, blood pressure variability, and adherence-related patterns to support clinical evaluation.

Professional Presentation

A consistent visual design enhances clarity and helps clinicians quickly identify relevant patterns.

Why Structured Home Data Supports Clinical Decision-Making

Capture Long-Term Patterns

Office readings may not reflect typical BP.
SteadyStat organizes home measurements across time-of-day windows to **highlight patterns** such as morning surges and potential timing-related variations.

Evaluate Adherence Context

Up to **50%** of apparent resistant hypertension cases are actually due to medication nonadherence.

SteadyStat helps clinicians evaluate whether elevated readings may be related to adherence or timing before considering further steps.

Support Confident Adjustments

Structured trends and variability metrics provide **context** that can reduce uncertainty and support guideline-aligned treatment decisions.

Provide Out-of-Office Insight

Guidelines recommend confirming elevated BP with home or ambulatory monitoring.
SteadyStat offers a practical way to **gather structured home data** between visits.

How SteadyStat Complements Existing Monitoring Approaches

Aspect	Clinic / EHR	24h ABPM	Patient Apps	SteadyStat
Frequency	~1 reading / visit (Spot-check)	Every 15-30 min	Unstructured	**2-4 readings / day (User-driven)**
Duration	Single moment	1-2 days (Snapshot)	Ongoing	**Up to 90 days (Continuous)**
Adherence	Patient recall (Unreliable)	No	Rare / Separate	**Integrated (Linked to BP)**
Format	Sparse notes	Device report	Raw list	**Clinician Summary (Actionable)**

Reducing Interpretation Burden Through Structured Summaries

SteadyStat condenses hundreds of home readings into a concise, structured summary, allowing clinicians to focus on interpretation rather than data entry.

Adherence at a Glance

Medication adherence heatmaps and indicators help clinicians quickly identify missed or delayed doses.

Integrated Visualization

Medication timing is overlaid on BP trends to display temporal alignment between dosing and readings.

Guideline Alignment

Readings are categorized using ACC/AHA thresholds, and trough-to-peak differences are presented using FDA-referenced concepts.

Example of SteadyStat Summary

Key Findings

Highlights from 360 readings. Non-adherent (with BP): 51 days (51 confirmed skipped, 0 missing logs).

No clear missed-day BP increase detected
Missed days averaged 135/83 (n=204) vs adherent 135/83 (n=156); Diff 0 mmHg systolic across 51 missed days with readings.

Morning readings run highest
Highest average in Morning: 144/89 (n=90) vs Daytime: 124/76 (n=90); Diff +20 mmHg systolic.

Largest trough-to-peak differentials detected
Largest trough-to-peak differentials: Losartan (+20; n=80/78) and Hydrochlorothiazide (+20; n=83/82).

Within-dataset BP variability
Systolic SD 11.0 mmHg; CV 8.1%.

Peak vs Trough BP (Timed Windows)

Comparing BP during peak effect (approx. 2-6h post-dose) versus trough (end of dose, 20-24h).

Most notable: Losartan shows higher readings near trough (end of dose) (Diff +20 mmHg systolic).

Losartan 50.0 mg — High data confidence

Peak	Trough	Difference
123/76 (n=79)	**144/89 (n=77)**	**+20 mmHg**

Hydrochlorothiazide 12.5 mg — High data confidence

Peak	Trough	Difference
123/77 (n=82)	**144/89 (n=81)**	**+20 mmHg**

Example of SteadyStat Summary

Systolic Blood Pressure Category by Time-of-Day

	Morning	Day	Evening	Night
<130 mmHg	0% (n=0)	60% (n=54)	6% (n=5)	8% (n=7)
Stage 1	20% (n=18)	36% (n=32)	61% (n=55)	38% (n=34)
Stage 2+	80% (n=72)	4% (n=4)	33% (n=30)	54% (n=49)

Highest recorded systolic: 165 mmHg (2025-09-09 07:15)

Example of SteadyStat Summary

Reporting Integrity	Therapeutic Adherence	Adherence Alerts
100.0%	**77.5%**	**4**

Deterministic calculation rules are defined in Appendix A.

Attention Needed:
Adherence rates for specific medications: Amlodipine: 51.1%, Hydrochlorothiazide: 92.2%, Losartan: 88.9%

Top Associated Symptoms: None Recorded

Symptom Flag Events: 0 dose logs marked with symptom context tags.

Vitals on Adherent vs. Non-Adherent Days

Adherent Days (39d)	Non-Adherent Days (51d)	No BP Log
135/83 mmHg	**135/83 mmHg**	**0 days**

Adherence Heatmap & Timeline

SteadyStat

Integrating SteadyStat Into Hypertension Follow-Up

Reliable Home Data

Base clinical decisions on structured home trends rather than isolated office readings.

Clinical Efficiency

Review pre-analyzed summaries in minutes, reducing time spent interpreting raw logs.

Patient Engagement

Help patients understand how adherence and timing relate to their home readings.

steadystat.app/clinicians

SteadyStat is a clinical decision-support and patient self-monitoring tool. It does not diagnose hypertension, replace ambulatory BP monitoring, or recommend medication changes. Nighttime BP patterns are assessed only when patients record nighttime readings.