



American Academy
of Value Based Care

Medicare STAR RAS Inhibitor Adherence Quick Reference Guide

2025

Medicare STAR RAS Inhibitor Adherence Quick Reference Guide

1. MEASURE SNAPSHOT

CMS Part D Star Measure: D09 - Medication Adherence for Hypertension (RAS antagonists) (MA-H)

Definition: Percentage of **Medicare Part D members aged ≥ 18 years** who filled prescriptions for a renin-angiotensin system (RAS) antagonist (ACE inhibitors, ARBs, or direct renin inhibitors) to cover **$\geq 80\%$ of days** in the measurement period.^{1,2}

Measure Weight: Triple-weighted (3x) under Star Ratings; MA $\approx 30\%$ of total Part D rating^{1,2}

Exclusions: Members in hospice, palliative care, ESRD, advanced illness/frailty programs, or long-term care facilities, **MAH specific exclusion: prescription for sacubitril/valsartan.**^{1,2}

2025 Financial Impact: \$12.7 billion in total Quality Bonus Payments (QPBs) across all MA-PD contracts.³; \$372-\$438 per enrollee annually (depending on plan performance tier)³

Star Thresholds:¹⁻⁵

- **Adherent Patient:** PDC $\geq 80\%$
- **4-Star Plan:** $>80\%$ members adherent (historical 4 Star minimum)
- **5-Star Plan:** $>88\%$ members adherent (historical standard)
- Achieving 5 stars requires very high medical adherence (MA), typically requiring that over 90% of its members achieve the $\geq 80\%$ PDC threshold
- 2024 analysis of the **2025 Star Ratings cutpoints** demonstrated high and rising thresholds for MA
 - **MAH (Hypertension):** $\geq 93\%$

CMS Cut Points:¹

Plan Type	1 Star	2 Star	3 Star	4 Star	5 Star
MA-PD	< 84%	84% – <88%	88% – <91%	91% – <93%	$\geq 93\%$
PDP	< 88%	88% – <90%	90% – <91%	91% – <93%	$\geq 93\%$

Current Industry Performance (2024 → 2025 Trend)^{4,5}

- 62% of enrollees are in **4+ star contracts**, down from 79% in 2023⁴
- **Only 1.8%** of members are in **5-star contracts**, reflecting increased adherence variability and plan stratification risk⁴

Financial Stakes by Rating

Star Rating	Benchmark Bonus	Rebate	Marketing Rights
5 stars	5% increase + QBP	70%	Year-round enrollment
4.5 stars	5% increase + QBP	70%	Standard windows
4 stars	5% increase + eligible for QBP	65%	Standard windows
< 4 stars	None	50-65%	Limited

2. PDC CALCULATION

Formula

$$PDC = \frac{\text{Total days with medication available}}{\text{Days in measurement period}} \times 100$$

Success Threshold: $\geq 80\% \text{ PDC}$

Calculation Rules (Non-Negotiable)^{6, 7}

	Specification (2025 CMS/PQA Standard)	Operational Note
Measurement Start Date	Date of first RAS antagonist fill ≥ 91 days before December 31	Ensures sufficient observation window for annual PDC
Member Eligibility	Becomes eligible at 2nd fill within measurement year	Confirms chronic use vs trial
Data Source	Part D Pharmacy claims only (paid by plan)	Samples, cash-pays, 340B fills excluded
Supply Overlap	Overlapping days shift forward (no double-count)	Avoids inflated PDC ($>100\%$ errors)
Hospital or SNF Days	Excluded from denominator if covered stay > 7 days	Avoids penalizing temporary non-access
Class Aggregation	ACE + ARB + Direct Renin Inhibitors = one RAS class	Therapy switch counts as continuous adherence
End of Measurement	Dec 31 or disenrollment date (whichever comes first)	Defines final denominator for PDC calculation

Covered Medications (Medicare Part D 2025 RAS Antagonist Class)⁸

1. Angiotensin-Converting Enzyme (ACE) Inhibitors (" -pril")

Benazepril • Captopril • Enalapril • Fosinopril • Lisinopril • Moexipril • Perindopril • Quinapril • Ramipril • Trandolapril

2. Angiotensin II Receptor Blockers (ARBs) (" -sartan")

Azilsartan • Candesartan • Eprosartan • Irbesartan • Losartan • Olmesartan • Telmisartan

3. Direct Renin Inhibitor

Aliskiren (Tekturna) – rarely used in U.S. Medicare population but included per measure specification.

RAS antagonist class is covered, however one plan might cover one generic ARB (**Losartan**) at Tier 1, while another plan covers a different generic ARB (**Candesartan**) at Tier 1. Plans should map to measure-recognized NDCs per PQA/CMS.

3. CRITICAL BARRIERS & EVIDENCE-BASED SOLUTIONS

Primary Adherence Barriers⁸⁻¹²

	Patient Impact	Evidence-based Intervention
Forgetfulness / Routine disruption	35–40 % of non-adherent members	90-day fills + medication synchronization + refill
Cost burden / coverage gap	~1/3 cite affordability issues	\$0-copay or tier-reduction programs; MTM cost review; low-income subsidy programs
Adverse effects (ACE cough, hypotension)	10–15 % discontinue due to ACE cough	Switch to ARB (clinically equivalent outcomes and high rate of symptom resolution)
Therapy complexity / polypharmacy	25 % struggle with multi-drug regimens	Single-pill combinations (ACE/ARB + thiazide or CCB)
Access & logistics barriers	15–20 % limited pharmacy access	Mail-order or home delivery enrollment

Disparity Gaps Requiring Targeted Action⁹⁻¹²

Population Segment	Patient Impact	Interventions
Black and Hispanic beneficiaries	7–10 percentage-point lower adherence even in ≥4-star plans	Community pharmacist partnerships, trust-building outreach, BP self-monitoring support, \$0-copay/tier-reduction/subsidy programs; MTM cost review
American Indian/Alaska Native beneficiaries	lowest adherence rates, with gaps as large as 16%	Bilingual refill messaging, family-centered education; \$0-copay/tier-reduction/subsidy programs; MTM cost review
Southern states (CMS regions 4,6,8,9)	~13 % higher non-adherence rates	Mail-order enablement, low-cost generic campaigns
Low-trust index (all groups)	Strongest adherence predictor	Continuity with same prescriber/pharmacy, motivational interviewing, pharmacist follow-up calls

4. HIGH-YIELD INTERVENTIONS

Week 1 Quick Wins^{10, 13, 14}

Action / Strategy	Evidence Summary	Estimated PDC Increase	Operational Cue
Convert to 90-day supplies	Eliminates refill gaps; linked to $\geq 15\%$ absolute adherence gain	+15 – 20 %	Target members ≥ 2 fills behind schedule
Activate auto-refill & sync	Reduces refill gaps $\approx 60\%$;	+25 – 30 %	Auto-enroll at the point of sale or MTM call
Enroll in text/app reminders	$\approx 10\%$ lower adherence even in ≥ 4 -star plans	+15 – 20 %	Use HIPAA-compliant SMS or EHR alert
Generic substitution review	$\approx 13\%$ higher non-adherence rates	+20 – 25 %	Pharmacist review at every refill

1. **Switch to 90-day supplies: Instant 15-20% PDC boost**
2. **Activate auto-refill: Reduces gaps by 60%**
3. **Text reminder enrollment: Proven 17.8% absolute increase¹⁵**
4. **Generic substitution: Removes cost barrier for 70%**

Action / Strategy	Target Cohort (How to Select)	Typical 30-day PDC Effect	Implementation Notes
Pharmacist MTM (telephonic /embedded)	Prior gaps, polypharmacy, near-miss cohort	$\uparrow\uparrow$ adherence $\uparrow\uparrow$ persistence $\uparrow\uparrow$ on-time refills \downarrow gap-days	Use weekly check-ins for high-risk; document barrier, action, outcome(MEAT)
Smart pill bottles /digital monitors	Forgetfulness-flagged, cognitively at-risk, caregivers engaged	\uparrow adherence \downarrow late refills \uparrow reminders \downarrow manual calls	Limit to high-risk decile; pair with SMS/app reminders
Copay assistance /LIS navigation	OOP cost $>$ plan benchmark; prior abandonments; LIS-eligible	$\uparrow-\uparrow\uparrow$ adherence via affordability \downarrow abandonment \uparrow paid claims \uparrow 90-day fills	Build navigator script; close loop with pharmacy on successful enrollment
Mail-order auto-enrollment	Members with travel /transport barriers; stable regimens	$\uparrow-\uparrow\uparrow$ adherence via fewer gap opportunities \downarrow gap days $\uparrow\uparrow$ on-time refills \uparrow delivery success	Offer at refill or MTM; confirm address/stability; align with 90-day supply
90-day supply conversion + refill synchronization	Any member with ≥ 2 fills and non-complex titration	$\uparrow\uparrow$ adherence by reducing refill friction \downarrow Refill freq \downarrow Stockouts \uparrow PDC $\geq 80\%$	Default to 90-day when clinically appropriate; sync all chronic meds
Text/app reminders (HIPAA-compliant)	All non-adherent without cost or clinical barriers	\uparrow adherence as an adjunct \downarrow late refills \uparrow reminder response	Pair with synchronization / auto-refill; culturally/linguistically tailored messaging

30-Day Impact Strategies Clinical and Economic Outcomes of Adherence¹³⁻¹⁶

Outcome Metric	Improvement in Adherent Cohorts	Mechanism
Blood pressure control	30–45 % higher likelihood of achieving target BP	Continuous RAS blockade ↓ angiotensin II → ↓ vasoconstriction & aldosterone → lower BP variability
Major cardiovascular events (MI, stroke, HF)	≈25 % relative risk reduction	Sustained BP and vascular remodeling control ↓ end-organ stress & atherothrombotic event
All-cause hospitalization	≈ 21 % reduction (OR 0.79)	Improved BP stability → fewer hypertensive crises, HF decompensations, renal injury
All-cause mortality	≈ 10–12 % relative risk reduction (RR 0.89)	Long-term prevention of CV and renal progression lowers cumulative mortality
Total medical costs	11–20 % lower annual cost	Fewer admissions + ER visits + complications → lower PMPY medical cost burden

5. WORKFLOW OPTIMIZATION

Efficient adherence improvement requires coordinated action across clinical teams, pharmacies, and patients. Optimizing workflows directly lifts PDC and Star performance while maintaining audit readiness.

A. Clinical Workflow Optimization

- Embed **PDC dashboards** and auto-alerts for < 80 % or post-discharge members
- Enable **standing refill protocols** for 90-day or mail-order conversion
- Review **near-miss (PDC 75–79 %)** patients in weekly cross-team huddles
- Use **monthly multidisciplinary review** to close high-risk gaps

B. Pharmacy Engagement Strategies

- Create **preferred pharmacy partnerships** with adherence incentives. Trigger **pharmacist MTM calls** for URGENT/PRIORITY tiers
- Schedule **10–14-day pre-refill outreach** to prevent gaps
- Integrate **community-pharmacy notes** into care-management platforms

C. Patient Education & Engagement

- Apply **brief motivational interview style scripts** that normalize barriers
- Provide **plain-language, bilingual handouts** explaining “PDC ≥ 80 %”
- Link **home BP logs** to refill success to reinforce motivation
- **Celebrate adherence milestones** at each refill contact

D. Simplification of Medication Regimens

- Convert to **fixed-dose combinations** when appropriate (ACE/ARB + thiazide/CCB)
- Align refill schedules** across chronic conditions
- Deprescribe duplicates** or low-value meds to cut pill burden
- Prefer **once-daily formulations** for eligible patients

E. Use of Technology & Reminders

- Auto-enroll sub-80 % PDC members in **SMS/app reminders**
- Offer **smart caps** or **digital packaging** for forgetfulness/cognitive risk
- Send **portal or IVR confirmations** pre-refill; track completion monthly
- Analyze reminder data to adjust outreach volume

Risk Stratification Protocol

Tier	Improvement in Adherent Cohorts	Response Time	Recommended Actions
URGENT	PDC < 40 % OR Discharged < 7 days OR ≥ 3 missed fills OR > 10 active meds	< 24 hours	Pharmacist call; refill + barrier review; coordinate with discharging provider; document MEAT & refill action
PRIORITY	PDC 40–60 % OR cost concern OR recent side effect OR new therapy < 90 days	48–72 hours	Outreach for refill sync, copay/LIS check, or ARB switch if ACE cough. Add reminder enrollment
ROUTINE	PDC 60–79 % OR stable but suboptimal OR single barrier	Weekly review	Auto-refill setup; 90-day conversion; mail-order or reminder text; monitor PDC ≥ 80 % progress
MAINTENANCE	PDC ≥ 80 % AND no current barriers AND stable > 6 months	Monthly	Reinforce adherence success; review at annual wellness or med sync cycle; document continued stability.

Re-score all members monthly; automatic escalation if ≥ 10 % PDC drop or hospital discharge event detected.

Outreach Script That Works

Hi [name], I'm calling from your health plan about your blood-pressure medicine. I noticed there might be a gap in your refills, and I want to make sure you have what you need. Many patients tell me [common barrier(s) e.g., 'cost' or 'forgetfulness'] make it tough sometimes. What's been your experience?"

Follow-up flow:

- 1. Listen → validate → summarize barrier**
- 2. Offer tailored solutions** (e.g., 90-day supply, mail-order, copay help).

3. **Confirm next refill date + preferred pharmacy.**
4. **Document resolution** (date/time, intervention type, new PDC trajectory).

6. DOCUMENTATION FOR AUDIT SUCCESS

Accurate, time-stamped documentation is the single most important determinant of Star measure validation during CMS audits. Every adherence encounter should clearly show the who, what, when, and outcome — structured for traceability and MEAT compliance.¹

Must-Have Elements

Element	Documentation
Member identifiers	Member ID + full medication name, strength, and dose
Current PDC status	Calculated % with start/end dates of measurement period
Barriers identified	List specific causes (cost, forgetfulness, side effects, access)
Interventions	Each action with an implementation date (e.g., auto-refill, 90-day mail, ARB switch)
Follow-up plan	Defined timeline (e.g., "Next PDC check in 30 days")
Outcome metrics	Post-intervention PDC or refill confirmation noted

Documentation Examples

AUDIT-READY:

"Member #12345, losartan 50mg daily. PDC 42% (1/1-6/30/24).

Barriers: \$40 copay, forgets evening dose.

Actions: Enrolled \$0 copay program 7/1, switched to AM dosing, 90-day mail order initiated. Next PDC check 8/1."

INSUFFICIENT: "Patient nonadherent to BP meds. Counseled on importance."

Clinical Documentation Optimization

- Use SOAP or **MEAT** structure for every contact:
 - *Monitor*: current PDC, refill gap, or BP trend.
 - *Evaluate*: reason for non-adherence.
 - *Assess*: patient readiness, barrier type.
 - *Treat/Track*: intervention + timeline.
- Auto-populate **PDC fields from claims data** in EHR to reduce error.
- Attach **intervention type codes** (e.g., "MTM-1," "MAIL-90," "COPAY-AID") for audit traceability.

Audit-ready documentation transforms adherence outreach from "soft counseling" into verifiable, revenue-protecting Star performance evidence.

7. PERFORMANCE MANAGEMENT

Continuous, data-driven monitoring ensures adherence programs stay aligned with CMS cut-points and financial targets. This measure is **100% determined by claims data** (pharmacy fills). There is **no manual chart review** or provider submission that can change the score. If the member didn't fill it, the score drops.

Use daily, weekly, and monthly review tiers to maintain focus and accountability across pharmacy, clinical, and quality teams.^{1, 3, 4}

Daily Monitor List- Frontline Focus

Monitor List	Actionable Criteria	Operational Response
Near-miss members (PDC 75–79 %)	Identify via daily PDC feed	Outreach within 48 h; refill or mail-order enrollment (eligible for 5–10 pt lift)
Recent hospital discharges on RAS	≤ 7 days post-discharge	Verify med reconciliation + 90-day fill initiation
Upcoming refill windows	Fills due within 10 days	Trigger auto-refill or text reminder
Failed intervention follow-ups	No response within 7 days of outreach	Escalate to pharmacist / care coordinator

Focus on high-yield, high-risk members for rapid action

Weekly Dashboard Metrics

Metric	Target / Insight	Operational Response
Overall PDC trend	Track plan-level movement toward ≥ 88 % adherence	Escalate cohorts trending < 78 %
Interventions completed vs pending	Ensure ≥ 90 % follow-through within 5 days.	Redistribute outreach workload
Cost per successful intervention	Target <\$50 per member per quarter	Prioritize low-cost, high-yield methods (auto-refill, mail)
Provider-level performance	Identify top and bottom deciles	Targeted feedback, educational resources
Demographic gap analysis	Detect race/region PDC variance > 5 pts	Deploy equity-focused outreach

Aggregate performance indicators for operational leaders

Monthly STAR Projections

Indicator	Calculation / Action
Current rate vs CMS cut-points	Compare to latest benchmarks
Members needed to "move the needle"	Estimate count to reach next Star threshold.
Revenue at risk	Project bonus variance per 1,000 members
Resource allocation ROI	Rank interventions by PDC impact per \$ spent

Link performance metrics to financial and quality outcomes

Consistent daily tracking, weekly analytics, and monthly Star projections convert adherence management into predictable financial performance—turning data visibility into sustained Star performance.

8. FINANCIAL MODELING

RAS adherence is one of the highest ROI quality initiatives in Medicare Advantage. Targeted adherence investment consistently yields positive returns for providers and patients.¹⁻⁴

Investment Requirements (per 1,000 members)

Indicator	Calculation / Action	Estimated Annual Cost
Personnel	0.5 FTE Pharmacist (\$65 K) 1.0 FTE Pharmacy Tech (\$35 K) for adherence outreach and monitoring	\$100 K
Technology	Estimate count to reach the next Star threshold.	\$50 K
Materials	Project bonus variance per 1,000 members	\$10 K
Resource allocation ROI	Rank interventions by PDC impact per \$ spent	≈ \$160 K per 1,000 members

Real-world example scenario

Scenario: A 50,000-member MA-PD plan launched a pharmacist-led adherence program in Q1 2025.

Investment: \$8 million (total scaled).

Interventions: 90-day conversion, auto-refill activation, and copay navigation.

Outcomes at 12 months:

- RAS PDC rose from 76 % → 87 %.
- Plan Star rating improved from 3.5 → 4.5.
- Annual quality bonus increase ≈ \$18 million.
- Net ROI ≈ 5.1x within first year.

Operational Insight: The plan retained over 96 % of members year-over-year and cut avoidable hospital admissions by ~18 %.

A focused RAS adherence initiative can deliver exceptional financial leverage. Meaningful investment in MAH plans typically generates hundreds of thousands in annual returns through reduced medical costs, quality bonus payments, and member retention gains—an ROI approaching 5:1 within the first year.

In real-world Medicare Advantage programs, that translates to **multi-million-dollar quality bonuses and measurable reductions in avoidable hospitalizations**, making RAS adherence one of the **highest-yield investments in the Star Ratings portfolio**.

9. REGULATORY REQUIREMENTS

CMS Audit Preparedness

A. CMS Audit Preparedness^{1, 2, 4, 17, 18}

Ensure the following documentation and system controls are in place to meet audit standards for the Adherence to Renin-Angiotensin System (RAS) Antagonists measure:

- **Algorithm validation:** Quarterly auditing of PDC calculation logic to confirm no member exclusion, correct denominator/ numerator alignment, and timely claim capture.
- **Data integrity:** Daily checks for claim feed completeness, missing days-covered fields; monthly reconciliation of pharmacy claim to PDC summaries.
Documentation audit trail: All intervention-outreach actions must be timestamped, linked to member ID, with barrier, action, and outcome clearly noted.
- **Appeal process:** Dedicated team with documented **72-hour response protocol** for member/plan appeals of adherence status or PDC adjustments.
- **Record retention:** Maintain all relevant data for **at least 10 years**, including claims, intervention logs, analytics output, and dashboards.

2025 - 2026 Changes to Monitor^{1, 2, 4, 17, 18}

- The **Health Equity Index (HEI)** or equivalent measure is now a formal part of the Star Ratings framework for measurement year 2025 (impacting the 2027 rating) and will carry increasing weight
- **Cut-points raised** for many Part D adherence and outcome measures in 2026, meaning the bar for "4-star" and "5-star" is higher (by ~3-12 percentage points in some cases)
- **Telehealth interventions** and virtual pharmacist encounters are now explicitly counted as valid "interventions" under outreach/engagement components and should be captured in workflow logs
- Increased CMS focus on **disparity reduction** means plans must stratify adherence by demographics and SDOH (social determinants of health) and document targeted corrective actions

Implications for RAS Adherence Programs

- Given the increased emphasis on equity, your adherence program must track PDC performance by subgroup (e.g., race/ethnicity, LIS status) and document interventions targeted at lower-performing groups.
- With higher cut-points, the program needs early-year positioning so that PDC rises into the new elevated benchmarks by measurement year.
- Audit logs must clearly distinguish virtual vs in-person interventions, as CMS now treats telehealth outreach as valid.
- The algorithm and dashboard must include filters for equity index captures, ensuring plans can report on equity-driven actions and results during audits.

KEY TAKEAWAYS

- Triple-weighted measure = outsized financial leverage:** RAS adherence drives ~30% of Part D Star performance and directly determines bonus eligibility
- Binary threshold:** 80 % PDC is pass; 79 % is fail; every day of coverage matters; aim for >90% PDC
- ROI powerhouse:** Typical returns of **5-7x per \$ invested**, combining quality bonuses, medical cost savings, and retention gains
- High-yield action:** **90-day fills** and synchronization remain the single most impactful interventions
- Equity imperative:** Addressing adherence disparities is now **required for 5-Star status** under CMS's Health Equity Index framework
- Audit readiness = revenue protection:** Complete documentation trails and validated algorithms determine audit survival
- Technology accelerates success—but workflow wins:** Platforms enable scale, but human-led pharmacist engagement remains the decisive factor

RAS adherence remains the most profitable, measurable, and controllable driver of Star success. When coupled with equity-focused outreach and airtight documentation, it delivers unmatched ROI, sustained audit compliance, and long-term competitive advantage in the 2026 Part D environment.

REFERENCES

1. Centers for Medicare & Medicaid Services. *2026 Part C & D Star Ratings Technical Notes*. Published September 25, 2025. <https://www.cms.gov/files/document/2026-star-ratings-technical-notes.pdf>
2. Centers for Medicare & Medicaid Services. *2025 Medicare Advantage and Part D Star Ratings — Fact Sheet*. Published October 10, 2024. <https://www.cms.gov/newsroom/fact-sheets/2025-medicare-advantage-and-part-d-star-ratings>
3. Cubanski J, Neuman T. *Medicare Advantage Quality Bonus Payments in 2025*. KFF Issue Brief. Published October 2025. <https://www.kff.org/medicare/medicare-advantage-quality-bonus-payments/>
4. Milliman. *Star Rating Performance Benchmarks and Cut-Points 2025*. Accessed October 26, 2025. <https://edge.sitecorecloud.io/millimaninc5660-milliman6442-prod27d5-0001/media/Milliman/PDFs/2024-Articles/11-6-24-Stars-in-Retrograde-Decoding-the-2025-decline.pdf>
5. Borrelli EP, Saad P, Barnes N, Lucaci JD. *The influence of medication adherence on Medicare Star Ratings: A decade-long analysis of health plan performance*. *J Manag Care Spec Pharm*. 2025;31(5):512-519. doi:10.18553/jmcp.2025.31.5.512
6. Johns Hopkins Medicine. *Understanding the Medication Adherence for Hypertension (RAS Antagonists) Measure*. Accessed 2025. <https://www.hopkinsmedicine.org/johns-hopkins-health-plans/providers-physicians/health-care-performance-measures/hedis/medication-adherence-hypertension>
7. Pharmacy Quality Alliance. *Adherence Measures and Specifications (PDC)*. Updated 2025. <https://www.pqaalliance.org/adherence-measures>
8. Jones DW, Ferdinand KC, Taylor SJ, et al. 2025 *AHA/ACC/AANP/AAPA/ABC/ACCP/ACPM/AGS/AMA/ASPC/NMA/PCNA/SGIM Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults*. *Hypertension*. 2025;82(10):e212-e316. doi:10.1161/HYP.0000000000000249
9. Chang TE, Ritchey MD, Park S, et al. *National rates of nonadherence to antihypertensive medications among insured adults with hypertension, 2015*. *Hypertension*. 2019;74(6):1324-1332. doi:10.1161/HYPERTENSIONAHA.119.13616
10. Abegaz TM, Shehab A, Gebreyohannes EA, Bhagavathula AS, Elnour AA. *Nonadherence to antihypertensive drugs: A systematic review and meta-analysis*. *Medicine (Baltimore)*. 2017;96(4):e5641. doi:10.1097/MD.0000000000005641
11. Chen R, Suchard MA, Krumholz HM, et al. *Comparative first-line effectiveness and safety of ACE inhibitors and angiotensin receptor blockers: A multinational cohort study*. *Hypertension*. 2021;78(3):591-603. doi:10.1161/HYPERTENSIONAHA.120.16667
12. Tsang CC, Browning J, Todor L, et al. *Factors associated with medication nonadherence among Medicare low-income subsidy beneficiaries with diabetes, hypertension, and/or heart failure*. *J Manag Care Spec Pharm*. 2021;27(8):971-981. doi:10.18553/jmcp.2021.27.8.971
13. Cutler RL, Fernandez-Llimos F, Frommer M, Benrimoj C, Garcia-Cardenas V. *Economic impact of medication non-adherence by disease groups: a systematic review*. *BMJ Open*. 2018;8(1):e016982. doi:10.1136/bmjopen-2017-016982
14. Ruppar TM, Cooper PS, Mehr DR, Delgado JM, Dunbar-Jacob JM. *Medication adherence interventions improve heart failure mortality and readmission rates: Systematic review and meta-analysis of controlled trials*. *J Am Heart Assoc*. 2016;5(6):e002606. doi:10.1161/JAHA.115.002606
15. Jacob V, Reynolds JA, Chattopadhyay SK, et al. *Pharmacist interventions for medication adherence: Community Guide economic reviews for cardiovascular disease*. *Am J Prev Med*. 2022;62(3):e202-e222. doi:10.1016/j.amepre.2021.08.021
16. Marcum ZA, Jiang S, Bacci JL, Ruppar TM. *Pharmacist-led interventions to improve medication adherence in older adults: A meta-analysis*. *J Am Geriatr Soc*. 2021;69(11):3301-3311. doi:10.1111/jgs.17373
17. Centers for Medicare & Medicaid Services. *Medicare and Medicaid Programs; Contract Year 2026 Policy and Technical Changes to the Medicare Advantage Program, Medicare Prescription Drug Benefit Program, Medicare Cost Plan Program, and Programs of All-Inclusive Care for the Elderly (PACE); Health Equity Index Updates*. *Federal Register*. 2025;90(73):25781-25964. Published April 15, 2025. Accessed 2025.

<https://www.federalregister.gov/documents/2025/04/15/2025-06008/medicare-and-medicaid-programs-contract-year-2026-policy-and-technical-changes-to-the-medicare>

18. MedicareGuide.com. *2026 Medicare Advantage Star Ratings Changes: How They Impact Plans and Members*. Published May 2025. Accessed 2025.
<https://medicareguide.com/2026-medicare-advantage-star-ratings-changes>