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Hypertension: High Volume, High Cost — and a New Treatment Option

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37M
U.S. adults with uncontrolled blood pressure above 140/90

$131B
Average yearly cost of hypertension care

664K
Deaths in the U.S. with hypertension as a primary or contributing cause

Executive Summary

Hypertension remains one of the nation's most prevalent and costly chronic conditions, driving significant hospital utilization and financial strain. FDA-approved renal denervation (RDN) systems from Recor Medical and Medtronic offer a promising solution for treatment-resistant cases. With Medicare's New Technology Add-on (NTAP) and Transitional Pass-Through (TPT) payment pathways and its national coverage determination, hospitals have a timely opportunity to adopt RDN, enhance patient outcomes, and align innovation with reimbursement strategy.

Key Takeaways

- **Hypertension: high volume & cost** — 37M+ adults; ~$131B/year.
- **RDN option** — device-based therapy for uncontrolled hypertension.
- **FDA approvals (2023)** — Recor Paradise®; Medtronic Symplicity Spyral™.
- **Medicare payment pathways** — both devices granted NTAP (inpatient) status in FY 2025 and TPT (outpatient) payment status in CY 2025.
- **Published NCD** — coverage under the Coverage with Evidence Development program.
- **Hospital preparedness** — ensures correct coding, documentation, and stakeholder awareness for compliance.

Renal Denervation (RDN)

Adjunct procedure for patients whose blood pressure stays high despite lifestyle measures and medications. RDN disrupts renal sympathetic nerves via:

- **Ultrasound (uRDN):** Focused acoustic energy via catheter or external transducer. FDA approved Nov 7, 2023.
- **Radiofrequency (rfRDN):** Catheter-based heat ablation (most used). FDA approved Nov 17, 2023.

Recent NTAP and TPT designations encourage broader clinical adoption of these therapies.

National Scope and Impact

According to proprietary Medicare Fee-for-Service claims data from RealTime Medicare Data (RTMD), average payments are higher for Paradise® and Simplicity Spyral™ Inpatient Hospital claims; however, Outpatient Hospital procedures have greater volume, with Paradise® having higher average payment and Simplicity Spyral™ having higher utilization.

Inpatient Hospital RDN

Paradise® (uRDN)

- NTAP start: Oct 1, 2024; `ICD-10-PCS X051329`
- Max add-on: **$14,950**
- NTAP continued for FY 2026 (from Oct 1, 2025)

Symplicity Spyral™ (rfRDN)

- NTAP start: Oct 1, 2024; `ICD-10-PCS X05133A`
- Max add-on: **$10,400**
- NTAP continued for FY 2026 (from Oct 1, 2025)

Outpatient Hospital RDN

Paradise® (uRDN)

- TPT start: Jan 1, 2025
- Codes: `C1736` + `0338T` (unilateral) or `0339T` (bilateral)
- Catheter one-time cost: **$22,000**

Symplicity Spyral™ (rfRDN)

- TPT start: Jan 1, 2025
- Codes: `C1735` + `0388T` (unilateral) or `0339T` (bilateral)
- Catheter one-time cost: **$16,000**

RTMD Inpatient Hospital Data: 10/1/2024-6/30/2025

Device	Claims	Avg LOS	Avg Charges	Avg Paid
Paradise®	10	5.1 days	$231,346	$30,658
Symplicity Spyral™	16	3.44 days	$225,580	$25,180

RTMD Outpatient Hospital Data: 1/1/2025 to 6/30/2025

Device	Procedures	Avg Payment
Paradise®	60	$19,294 (C1736)
Symplicity Spyral™	117	$14,925 (C1735)

Take Action

If your hospital is performing RDN procedures:

- ✔ Ensure the correct `ICD-10-PCS` and `HCPCS/Category III` codes are on every claim.
- ✔ Share CMS' Final Decision Memo with key stakeholders.

CMS' Final Decision Memo (CAG-00470N)

Published: October 28, 2025

CMS will cover radiofrequency renal denervation (rfRDN) and ultrasound renal denervation (uRDN) for uncontrolled hypertension under the Coverage with Evidence Development (CED) program.

Benefit categories: Inpatient Hospital | Outpatient Hospital | Physicians' Services

Patients must meet **all** of the following coverage criteria:

(a) Diagnosis of uncontrolled hypertension (> 140/90 mm Hg) despite active management by a clinician with primary responsibility for blood pressure management.

(b) Uncontrolled hypertension diagnosed using either ambulatory blood pressure monitoring or serial home blood pressure readings.

(c) On stable doses of maximally tolerated guideline-directed medical therapy (GDMT), including lifestyle modifications, for at least 6 weeks before referral for RDN.

(d) As clinically appropriate, secondary hypertension must be evaluated and treated before determining that blood pressure remains uncontrolled.

(e) Patient has no contraindication to RDN, including estimated Glomerular Filtration Rate (eGFR) < 40, pregnancy, fibromuscular dysplasia, stented renal artery (3 months before RDN), renal artery aneurysm, significant renal artery stenosis (> 50%), or known kidney or secreting adrenal tumors.

(f) The primary clinicians must manage the patient for a minimum of six months before referral for RDN, during which the patient had at least three encounters, with no more than one of the three encounters being virtual.

(g) No prior RDN procedure

Note: The Final Decision Memo also includes Physician, Facility and CED Criteria. For example, clinicians referring Medicare beneficiaries must have longitudinal responsibility for hypertension management.

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