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OUTCOMES SPOTLIGHT: IMPACT ACROSS POPULATIONS

BY THE NUMBERS: KEY METRICS DRIVING RESULTS

BEYOND THE VISIT: THE POWER OF CONTINUOUS CARE

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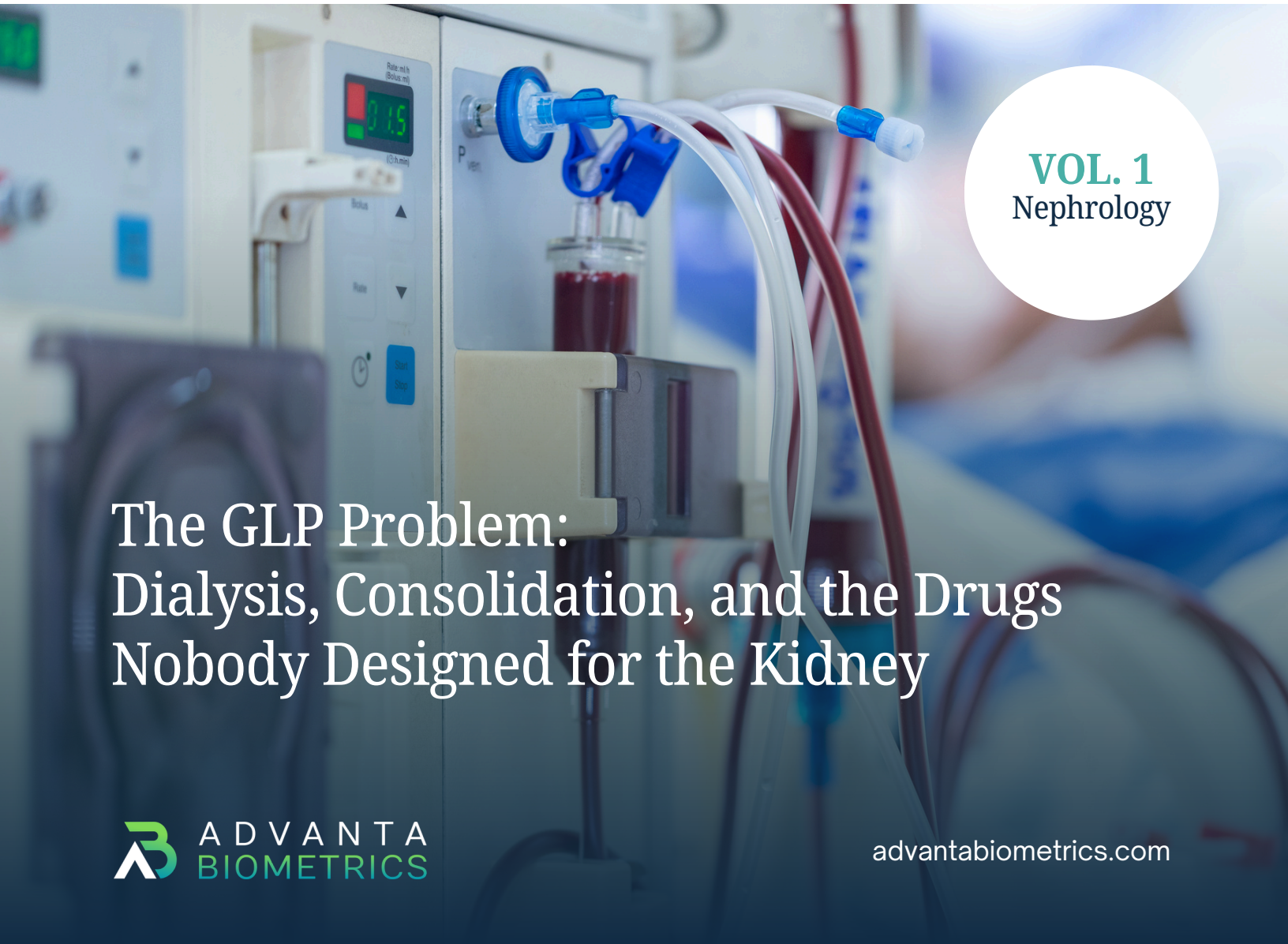

VOL. 1
Nephrology

The GLP Problem: Dialysis, Consolidation, and the Drugs Nobody Designed for the Kidney

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Executive Summary

"The specialty is becoming, after decades defined by a machine, a field defined by the prevention of the need for one."

Three times a week, every week, roughly 580,000 Americans sit in reclining chairs while machines clean their blood. The chairs belong to dialysis centers. The centers belong, overwhelmingly, to two corporations. DaVita and Fresenius Medical Care control more than 70% of the US dialysis market (Erickson et al., 2016). Medicare covers the bill for most of these patients under a 1972 amendment to the Social Security Act that made end-stage kidney disease the only diagnosis qualifying for universal federal insurance regardless of age. The arrangement has produced a $90 billion annual market built on a grim certainty: patients with failed kidneys need treatment until they get a transplant or die.

That certainty is eroding.

GLP-1 receptor agonists, the drug class that includes semaglutide (sold as Ozempic and Wegovy) and tirzepatide (Mounjaro, Zepbound), entered public consciousness as diabetes and weight-loss medications. They have since shown an unexpected property. They protect the kidneys. The mechanism appears to be direct, operating at the level of kidney tissue itself, independent of the metabolic improvements the drugs were designed to produce. If these agents prevent chronic kidney disease from progressing to end-stage failure at population scale, the number of people who start dialysis each year will shrink. The chairs will be empty. And the two companies that own those chairs will face a contraction they did not build for.

What the Evidence Shows

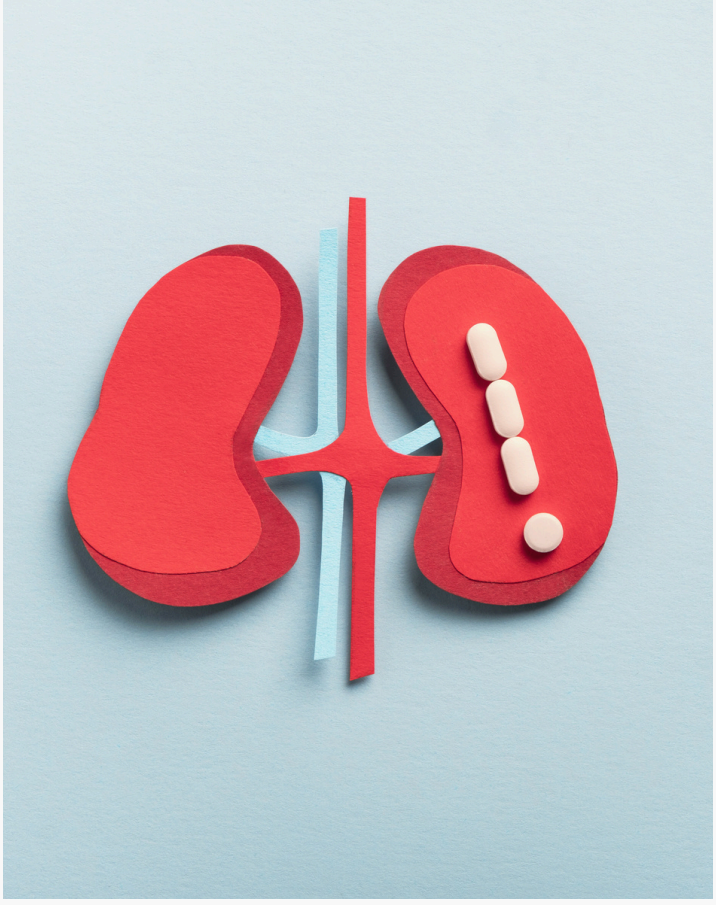
Chen and colleagues published a large observational study in JAMA Network Open in 2022, comparing GLP-1 receptor agonist use to DPP-4 inhibitors in patients who had both type 2 diabetes and advanced chronic kidney disease. The GLP-1 group had lower mortality (Chen et al., 2022). DPP-4 inhibitors were already considered kidney-safe. The GLP-1 agents outperformed an active comparator, which is a harder test to pass than beating a placebo.

Triozzi and colleagues strengthened the case in 2024 using Mendelian randomization, a genetic technique that approximates the structure of a randomized controlled trial by using inherited gene variants as proxies for drug exposure. Their finding: GLP-1 receptor activation slowed kidney disease progression regardless of changes in blood sugar or body weight (Triozzi et al., 2024). The nephroprotection was intrinsic to the receptor, not a downstream consequence of metabolic correction.

Thomas and Cooper titled their 2024 perspective in Nature Reviews Nephrology without qualification: "The GLP-1 Receptor Agonist Revolution Comes to Nephrology" (Thomas & Cooper, 2024). The field's leading journal does not publish headlines like that on speculation.

Metoyer and colleagues extended the clinical reach of these agents in 2025, reporting on GLP-1 receptor agonist outcomes in kidney transplant recipients with post-transplant diabetes (Metoyer et al., 2025). Transplant patients had been undertreated because of theoretical risks with immunosuppressive regimens. The drugs are migrating across the nephrology care continuum: pre-dialysis CKD, active management, and now post-transplant.

Nargesi and colleagues, meanwhile, found significant variability in who actually prescribes these medications. Nephrology visits were not reliably associated with GLP-1 receptor agonist initiation (Nargesi et al., 2022). The specialty that manages kidney disease has been slow to adopt the drugs that protect kidneys. This lag introduces friction into an otherwise clear pharmacologic trend and buys the dialysis industry time it may not deserve.



The Consolidation Arithmetic

The dialysis industry consolidated on a bet that demand would keep rising. Between 2001 and 2011, the number of uniquely owned competing dialysis providers in the United States fell by 8%, even as total facility count grew by 54% to absorb an expanding patient population (Erickson et al., 2016). Local dialysis markets registered a mean Herfindahl-Hirschman Index of 0.46 across both years, on a scale where 1.0 is monopoly. The markets were and remain extraordinarily concentrated.

Consolidation follows a familiar pattern across American medicine. Tan and colleagues documented 184 private equity-backed acquisitions of dermatology practices between 2012 and 2018, spanning 30 states (Tan et al., 2019). Brill and colleagues traced similar dynamics across anesthesiology, radiology, and urology (Brill et al., 2022). Dialysis preceded all of them. It was the sector that proved fragmented physician markets could be rolled up into industrial-scale operations financed by favorable Medicare reimbursement.

SGLT-2 inhibitors like empagliflozin and dapagliflozin, introduce a scenario in which incident ESKD cases decline. The decline will be slow. Insurance barriers, prescribing inertia, and the years it takes for kidney disease to progress all buffer the timeline. But two companies holding 70% of a contracting market face math that consolidation makes worse. Fixed infrastructure, long-term leases, staffing obligations, and debt structured against growth projections do not shrink in proportion to census drops.

Martin and colleagues identified some of the ethical dimensions of this structure in their 2020 joint working group report for the ASN, ERA-EDTA, and ISN. Their ten priorities included reducing dialysis costs, avoiding futile dialysis, and managing conflicts of interest in a specialty whose dominant revenue stream depends on patients reaching end-stage disease (Martin et al., 2020). GLP-1 receptor agonists do not resolve those conflicts. They sharpen them.

The Referral Problem

NGhimire and colleagues analyzed CKD referrals to nephrology in Alberta between 2006 and 2019. Of 69,372 patients referred, 41% did not meet guideline-concordant criteria for nephrology evaluation (Ghimire et al., 2022). Patients were arriving too early, with the wrong indications, or without the laboratory data that would make the visit clinically productive.

This matters in two directions. Unnecessary referrals consume the time of a specialist workforce that is already inadequate. And the patients who would benefit most from early GLP-1 receptor agonist or SGLT-2 inhibitor initiation may be the ones not getting referred at the right moment. The pipeline leaks at both ends: too many patients who do not yet need a nephrologist, too few who do.

The Trap & the Exit

The large dialysis organizations understand this. DaVita and Fresenius have both invested in integrated kidney care programs and value-based payment arrangements. The transition is real but slow. Divesting from 3,000 physical dialysis centers while simultaneously building a CKD management capability is the corporate equivalent of renovating a house while living in it. The dust gets everywhere.

Small and mid-sized nephrology practices may be able to use their agility to their advantage. They carry less fixed overhead. They can pivot to GLP-1 and SGLT-2 prescribing, CKD monitoring, and value-based contracts without dismantling an existing revenue machine. The consolidation that once made large organizations more efficient per treatment may now make them less adaptable per patient.

Kidney failure will remain a reality for hundreds of thousands of Americans. Dialysis will continue to be medically necessary for patients who reach end-stage disease. But the growth assumptions that powered two decades of industry expansion, billions in private equity capital, and the construction of thousands of facilities are being revised by a class of drugs that Novo Nordisk and Eli Lilly developed for metabolic disease and that the kidney claimed for itself.

The fellowship programs will need to train nephrologists who manage GLP-1 receptor agonists in CKD clinics with the same confidence they currently bring to hemodialysis orders. The referral pathways will need redesign so that the right patients reach nephrology at the stage when pharmacologic intervention can still prevent dialysis. The workforce models will need advanced practice providers to fill gaps that physician recruitment has failed to close.

The specialty is becoming, after decades defined by a machine, a field defined by the prevention of the need for one. That is a clinical gain and a market disruption occupying the same space. How the industry navigates the territory between those two facts will determine the shape of kidney care for the next decade.

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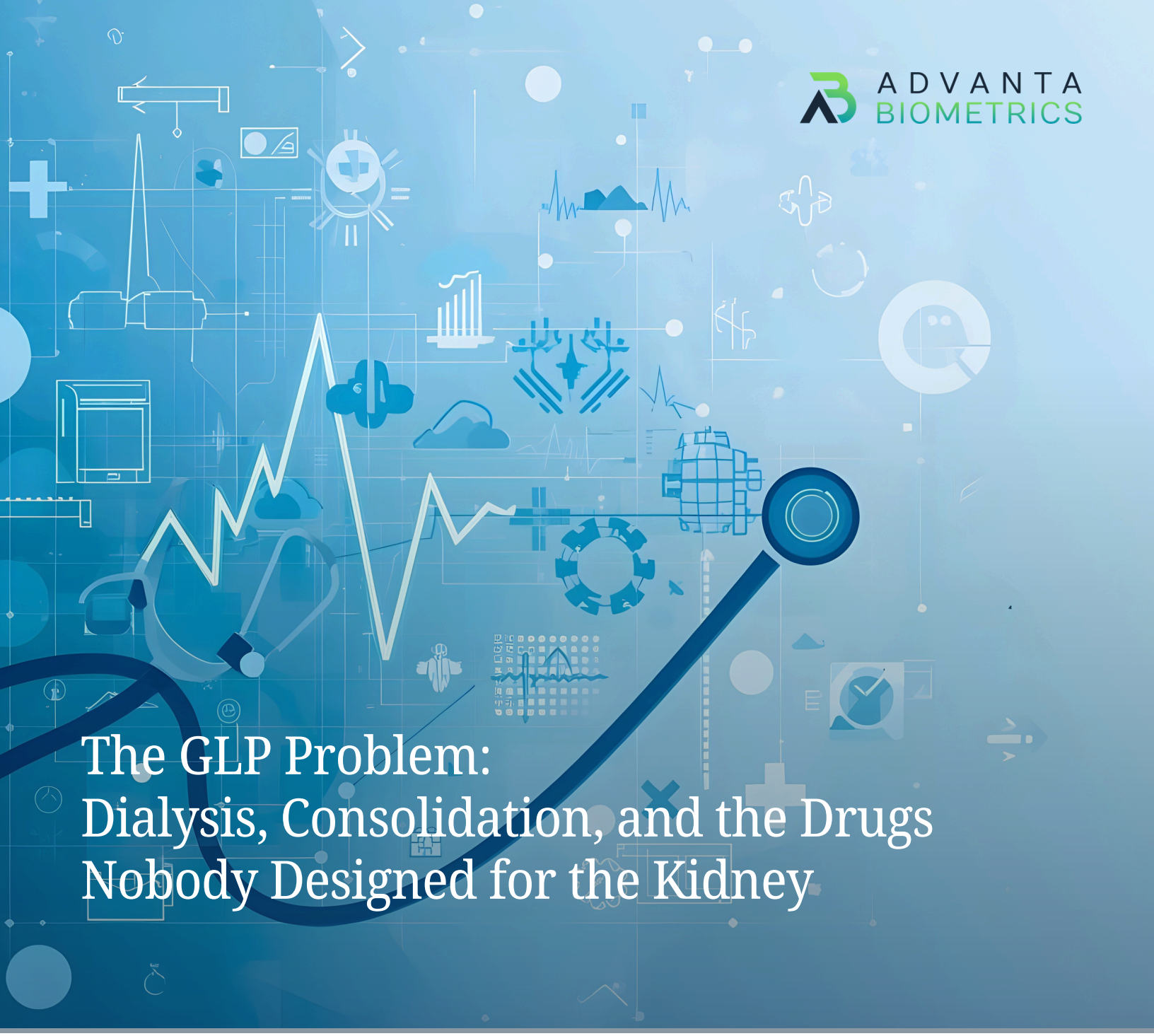

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