

Economic Impact of Effective FLEX Vessel Prep in Dialysis Access Maintenance

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HENRY FORD HEALTH[®]

Disclosures –

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Background

- Henry Ford Health – 5 acute care hospital
- Non-profit Mission for community
- Acute care sites serving at risk and complex HD needs in Southern Michigan
- Owned HD and Referral HD
- Premier financial data linking all sites

Problem

- Dialysis access maintenance is a chronic issues with hyperplasia, venous size issues, arterial disease and progression of native disease
- Stenosis limits the life span of a fistula or graft and the ability to provide life-saving dialysis for patients
- These procedures have a significant direct and time cost to both system and patient
- Stenting has shown to help in some locations but can lead to failure and degeneration

Method of Analysis

- A single vascular surgeon using FLEX as vessel preparation in patients with real world access issues
 - The Premier financial database was used to identify the patients utilizing FLEX Vessel Prep and compared to the remaining 12 surgeons performing maintenance without FLEX Vessel Prep
 - Including but not limited to bleeding as access site, thrombosis, and flow issues where treated and stenotic issues were treated with cutting technology
 - This was blinded and analyzed in aggregate without patient information for quality improvement
 - Means and financial data were given from output analysis of this database

Premier Database

- “Premier operates one of the nation’s largest performance improvement alliances of hospitals and other healthcare providers. We operate a leading purchasing network and also maintain clinical, financial and outcomes databases based on more than 45% of U.S. hospital discharges. Using the power of collaboration and technology, we play a critical role in helping health systems reduce costs, improve quality and safety, and address population health management and evolving fee-for-value payment models. Our business model is characterized by multiple revenue drivers, balance sheet strength and financial flexibility.”

The screenshot shows a Premier website page. At the top, there is a dark blue navigation bar with the Premier logo on the left and menu items 'About', 'What We Do', 'Solutions', and 'Brands' on the right. Below the navigation bar is a breadcrumb trail: 'Home > Newsroom > Henry Ford Innovations, Premier Inc. Partner to Incubate Innovation and Advance Clinical Research'. The main content area features a date 'May 03, 2022' and the article title 'Henry Ford Innovations, Premier Inc. Partner to Incubate Innovation and Advance Clinical Research'. Below the title is a sub-header 'Applied Sciences | Data & Analytics | Premier in the News | PINC AI' and a line 'Published in: Henry Ford Health'. The article text begins with 'Henry Ford Innovations (HFI), one of the nation's leading healthcare innovation programs, has partnered with Premier, Inc.'s PINC AI Applied Sciences (PAS) to accelerate the research, testing and development of new products, services, interventions and other novel healthcare initiatives.' It then states 'HFI and PAS will partner in three distinct areas:' followed by a bulleted list: '• To jointly leverage data, clinical input and other research to evaluate novel, new therapies and interventions for commercial development.', '• To conduct prospective research on specific care pathways and other interventions using real-world data and evidence (RWD/RWE).', and '• To improve the quality and speed of clinical trials using artificial intelligence (AI) to identify the best possible patient candidates more rapidly.' At the bottom, a quote reads: '“The mission of Henry Ford Innovations is to foster discoveries and advancements that improve people's lives. Our relationship with PINC AI and their industry partners adds 'rocket fuel' to our existing data-focused work, from clinical research to quality, value and operational efficiency. The resulting projects and commercial development will improve

Extending Primary Patency Is Better For Patients and Saves Money

Costs: Per-Patient Per-Year Vascular Access Related Costs Based on AVF Outcomes in Year 1 post AVF Creation*

Medicare Cohort: Patients initiating HD with a mature AVF	Costs in Patients who Maintained Primary Patency	Costs in Patients who Experienced Loss of Primary Patency
Year 1	\$6,442 ± \$8,882	\$15,009 ± \$16,896
Year 2	\$4,279 ± \$11,378	\$7,403 ± \$14,179
Average Per-Patient-Per-Year Costs	\$5,560 ± \$8,368	\$11,761 ± \$15,871

Adjusted to 2019 US\$

Resulting Total Per-Patient Costs at 2.5 Years

\$16,315

\$34,511

Data Characteristics

Analysis based on 2021 clinical year

Comparison: FLEX AV user (Knepper) vs other 12 surgeons in system

- 12 FLEX AV cases captured including:
 - Cost
 - Device, therapies, Repeat Procedures
 - Single operator vs 12 other AV interventionalists in group
 - 12 FLEX AV interventions vs 1164 other AV interventions
 - Patient **comorbidity index not different** (Elixhauser index (p=0.21))
 - Limitations
 - Financial database
 - One group benchmarking
 - FLEX case sample size (12)

Cost Comparison – Key Findings

- FLEX AV Usage demonstrated:
 - **0.91 fewer stents** per patient, per year
 - **0.76 fewer interventions** per patient, per year
 - **\$1142** less total interventional product costs per patient, per year
(even including FLEX VP Catheter cost)

– Conclusions:

- Use of FLEX Vessel Prep did not increase overall costs to treat patients across measured, 12-month period.
- FLEX Vessel Prep savings driven by lower use of stents and fewer repeat interventions

Potential Implications – Healthcare System

<u>Category</u>	<u>Data</u>
Total AV Interventions	1164
Cephalic Arch Interventions (only): 30%	350
AVG Interventions (only): 20%	233
Total Targeted Interventions	583
Cost savings per patient, per year	\$1,142.00
Potential Annual savings using FLEX VP for targeted interventions	>\$665,000.00

Use of FLEX Vessel Prep in select AV lesion subsets appears to be associated w/ substantial overall Healthcare System savings.

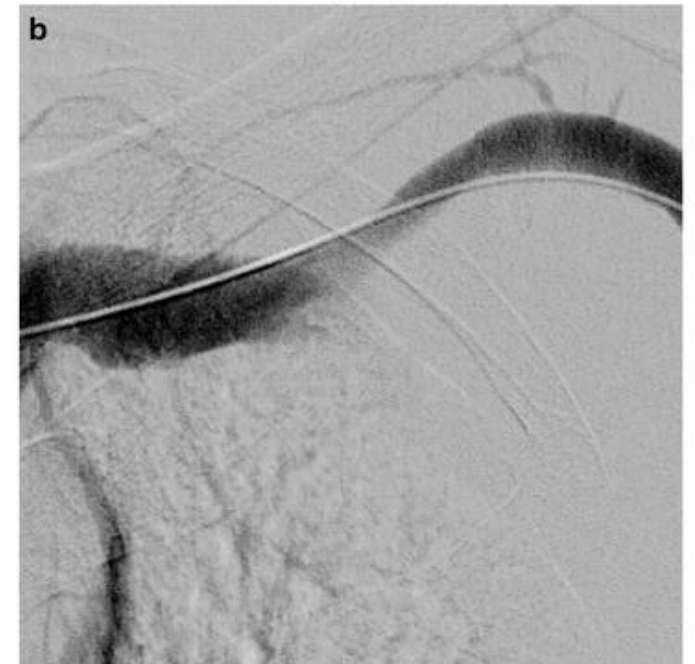
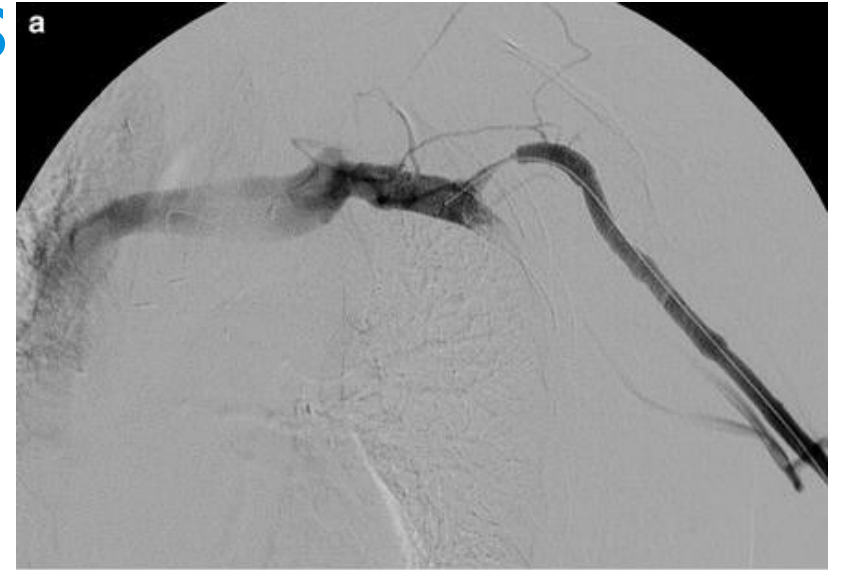
Case Study – Why FLEX Matters

76 yo AA Male on HD for 6 years

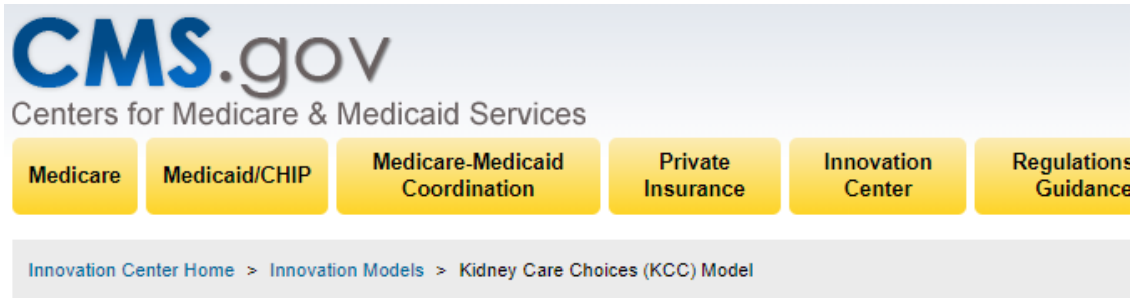
- On second access – left BC upper arm
- Bleeding in ER
- **Had been seen every three months** at outside facility for 2 years for scheduled angioplasty

FLEX- AV

- Severe Cephalic Arch disease (valve)
- 3 passes with FLEX
- **Intervention and bleeding free for 13 months**



Why Should We Care?



Kidney Care Choices (KCC) Model

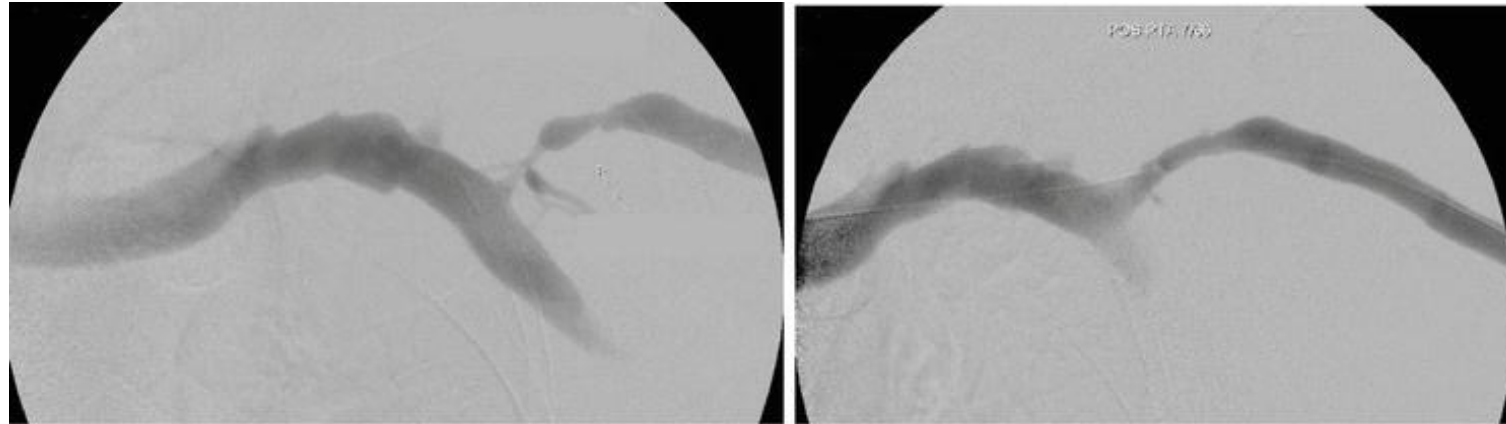
Kidney Care Choices (KCC) builds upon the existing [Comprehensive End Stage Renal Disease \(ESRD\) Care \(CEC\) Model](#) structure – in which dialysis facilities, nephrologists, and other health care providers form ESRD-focused accountable care organizations to manage care for beneficiaries with ESRD – by adding strong financial incentives for health care providers to manage the care for Medicare beneficiaries with chronic kidney disease (CKD) stages 4 and 5 and ESRD, to delay the onset of dialysis and to incentivize kidney transplantation. The model will have four payment Options: CMS Kidney Care First (KCF) Option, Comprehensive Kidney Care Contracting (CKCC) Graduated Option, CKCC Professional Option, and CKCC Global Option.

- KCC Model Is Gaining Momentum
- Financial incentive to manage total cost of care for patients with stage 4/5 ESRD
- It's the right thing to do for patients
 - Delay onset of dialysis and incentivize kidney transplant
- TCC may be coming to you soon

In the Health Care Economy - We Are Responsible

Results and Costs Matter

- Team and Patient centered
 - All responsible for health care cost
 - Fewer procedures better for patient and comfort



(a)

(b)

FLEX AV Has Potential to Impact Hemodialysis

- One surgeon's experience
- Solid Clinical Data
 - Real world
 - Efficacy
 - Effectiveness

Its your Choice

- But I believe in my results
- Complex & repeat patients may benefit most
- Follow on study of economic considerations ?