CKD Intercept (CKDI) Model
A patient-centered physician-led APM to improve identification and care of beneficiaries with Chronic Kidney Disease

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Current Medicare payment approach is misaligned with delivering optimal CKD care

• For patients with CKD not on dialysis, Medicare pays nephrologists max $148 per E&M office visit (usually 3-4 visits per year).

• For patients with on dialysis, Medicare pays nephrologists a capitated payment ranging from $188-$388 per month
  ▪ This approach creates an incentive for nephrologists to recommend starting dialysis early, even when it might not be necessary or in patients’ best interests.
  ▪ This approach limits providers’ ability to invest in the infrastructure necessary to take excellent care of patients with advanced CKD, which is often as or more difficult and time-consuming than taking care of patients once they have started dialysis

➢ The CKDI Model changes these incentives to reward optimal CKD care and reduce unnecessary dialysis and dialysis complication-related costs
  ▪ Every patient-month of delayed or avoided dialysis could save Medicare close to $5,000 per patient per month or $60,000 per year
## Comprehensive Chronic Kidney Disease (CKD) Care Strategy

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<tr>
<th>Primary Care</th>
<th>Nephrology Care</th>
<th>ESRD Care</th>
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<tr>
<td>• Assessment of at-risk individuals</td>
<td>• Treatment CKD 4/5 or high risk 3b</td>
<td>• Dialysis facility</td>
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<tr>
<td>• Monitoring of CKD progression</td>
<td>• CKD Medicare Education Benefit</td>
<td>• Transplant Center</td>
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<tr>
<td>• Treatment of stage 3a/b patients</td>
<td>• Patient informed decision making/selection of modality</td>
<td>• Nephrologist</td>
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<tr>
<td>• Education on self-management</td>
<td>• Placement of access if dialysis selected</td>
<td>• Primary Care</td>
</tr>
<tr>
<td>• Patient Awareness/Activation</td>
<td>• Assessment and management or care coordination for comorbidities</td>
<td>• On going support of conservative and palliative Care</td>
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<td>• Medicare Nutritional Therapy</td>
<td>• Co-management or coordination with PCP</td>
<td>• Referral hospice</td>
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<tr>
<td>• Referral/co-management of more complex patients</td>
<td>• Support transition to preferred modality</td>
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**Existing care models may provide opportunities here: ESCOs, SNPs**

**Need new models to fuel more wide spread improvements**
The CKDI Model is a physician-focused APM for nephrologists and primary care providers to collaborate in the care of patients with moderate to severe CKD

- The goal of the model is to improve identification of beneficiaries with CKD and to reduce program expenditures while improving their quality of care
- In this model, nephrology providers and primary care providers will form CKDI organizations (CKDI-Os) to take accountability for care of patients with CKD
  - Inclusion of primary care providers enhances identification of CKD, allows for care to be delivered in the “right setting,” and leverages longitudinal relationship along spectrum of CKD
Attribution

• CKDI-O comprised of primary care and nephrology NPIs
• Prospective assignment of beneficiaries based on plurality of primary care or nephrology claims to providers in CKDI-O
• Initial year will use ICD-10 codes for CKD stages 3, 4, and 5 in conjunction G codes distinguishing 3a and 3b and indicating albuminuria
  – Subsequent years will use new ICD-10 codes that incorporate albuminuria
• Option for voluntary alignment through PCP or nephrology provider
Payment methodology: 2 components

• CKDI payment (PBPM care management fee)
  – To support practice transformation and population health activities (i.e., care coordination, e-consults, virtual visits, remote monitoring, nutrition)
  – Amount tiered based on CKD stage—average $120 (range $80-$160)

• Performance-based incentive payment (PBIP)
  – To incentivize efficient, high-quality care and reduce unnecessary CKD-related utilization
  – Calculated retrospectively based on quality measure performance and CKD-related expenditures for attributed beneficiaries

➤ Similar approach to Oncology Care Model
**PBIP: risk corridors and benchmarking**

- Benchmark constructed from risk-adjusted historic performance and peer/national performance
  - CMS Discount
- CKDI-O performance based on CKD-related expenditures in prior performance period and quality measure performance
- Risk corridor (stop-gain and stop-loss) tiered based on CKD stage
  - No downside in first year
  - Second year: 5%
  - Subsequent years: stay at 5% or increase to 10% or 20%*

* NKF will reconvene our workgroup to determine how much risk is appropriate from a physician perspective
CKD-related expenditures included in PBIP reconciliation

- Hospitalizations and ER visits for AKI, electrolyte abnormalities, volume overload, AMI, CVA, CHF, diabetes (principal diagnosis)

- Dialysis and dialysis-related claims
  - Inclusive of CKD-ESRD costs in a 12 month period
  - Exclude transplant surgery
  - Exclude fistula placement surgery to negate incentive for catheters (which are less expensive)

- Dialysis access-related complications
  - Carved-out: transplant, EPO, dialysis access placement
# Quality performance adjustment

- Minimum threshold required before any PBIP can be paid
- PBIP adjusted based on performance on the following quality measures

<table>
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<tr>
<th>Optimal End Stage Renal Disease Starts</th>
<th>Adult Major Depressive Disorder (MDD): Coordination of Care of Patients with Specific Comorbid Conditions*</th>
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<td>(credit for transplant, home dialysis, or permanent access starts)</td>
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<tr>
<th>Documentation of Current Medications in the Medical Record</th>
<th>Develop patient shared-decision making measure</th>
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<th>Medication Reconciliation Post-Discharge</th>
<th>NSAID avoidance measure</th>
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| Care Plan (patients with an advanced care plan in place) |  |
|---------------------------------------------------------| |

| Advanced Chronic Kidney Disease with proteinuria: percent of patients on angiotensin-converting enzyme (ACE) inhibitors or angiotensin II receptor blockers (ARBs) |  |
Hypothetical scenario of downside penalty for early dialysis

- Accelerated CKD progression leads to potential shared losses

**Average/expected CKD5 course**
- CKD 5 spending
- ESRD spending

**Faster than expected progression**
- CKD 5 spending
- ESRD spending
  - CKD-IO accountable for increased period of ESRD (more expensive) spending

Total Period of Spending Accountability
Hypothetical scenario of upside bonus for delayed progression

- Slowed CKD progression leads to potential shared savings

**Average/expected CKD5 course**

- CKD 5 spending
- ESRD spending

**Slower than expected progression**

- CKD 5 spending
- ESRD spending

- CKD-IO has a period of less expensive CKD 5 spending and is eligible for potential shared savings

*January 1 (re-benchmark patients)*

*December 31*

*Total Period of Spending Accountability*
Practice transformation activities

• CKDI-Os/practices will be required to report annually on the following practice transformation activities:
  – Integrated mental health
  – Nutrition counseling
  – Advanced care planning
  – Patient and Family Advisory Councils
  – Shared decision-making tools

• CKDI-O providers must use CEHRT
Savings estimates

- NKF-sponsored simulation analysis of improved CKD care showed Medicare savings of $38 billion over 10 years, with savings by Year 2

- Similar program run by CareFirst produced $54.61 PMPM savings, but the program included all Stages of CKD. Savings were even higher in CKD Stages 3, 4, and 5—the focus of the CKDI Model.
• A retrospective analysis of EHR data looked at the costs of CKD by stage across commercial and Medicare payers*

• The article concludes that opportunities to reduce costs include hospital readmissions, and management of comorbidities such as heart failure and diabetes

Source: Golestaneh, Ladan All-Cause Costs Increase Exponentially with Increased Chronic Kidney Disease Stage, AJMC, Vol. 23; No. 10, Sup. June 2017.

*A retrospective analysis identified patients with a renin-angiotensin-aldosterone system inhibitor (RAASI) prescription from an electronic medical record (EMR) database (Humedica); those with ≥90 days in ≥1 CKD stage were selected based on estimated glomerular filtration rate or diagnosis code, and a cohort on RAASI medications without CKD was selected. Costs for specific services obtained from OptumInsight were applied to services in EMR data of patients aged <65 years (commercial) and ≥65 years (Medicare). Dialysis costs were excluded.
The CKD pilot program has a total **PMPM $54.61 less than** the book of business excluding CKD pilot program.

Attributes to a $35.99 difference in Institutional PMPM and a $16.06 difference in Pharmacy PMPM.
Interaction with other APMs

• CPC+
  – PCPs can participate in CKDI and CPC+
  – CPC+ care management fees will be recouped from the primary care practice for beneficiaries in both models

• ACOs
  – PCPs and nephrologists may also participate in Medicare ACO
  – CKDI payments and PBIPs will be factored into ACO savings calculations if beneficiaries are attributed both to a CKD-I
Fraud and abuse prevention

• Beneficiary notification
• Monitoring of rates of ICD-10 codes for CKD “unspecified stage” that might suggest risk-avoidance
• Practice site visits
• Monitoring of shifting of patients to non-participating nephrology practices that might suggest risk-avoidance
• Monitoring of rates of dialysis initiation to identify aberrancies that might suggest stinting
Waivers

• If necessary, CMS/OIG will explore any waivers necessary to facilitate effective clinical collaboration between primary care and nephrology practices

• Will also consider waiver of beneficiary inducement prohibitions to facilitate patient engagement
Evaluation

• Matched comparison groups to identify changes in utilization, costs, and quality

• Claims data, beneficiary surveys, site visits/focus groups