Community-based Programs and Strategies to Facilitate Smooth Transitions for the CKD Patient Population
Are You Up to Date?
CKD Onset

Diagnosis

ESRD - Dialysis
Average life expectancy: 5 years

Symptoms

Solutions Focused Here

Missed opportunities

Age-related kidney function decline

Time in primary care

Hypertension Diagnosis

Type-2 Diabetes Diagnosis

Silent progressive decline in kidney function

85 – 90% of CKD Patients


Prevalence:

Cost per stage:

CKD Diagnosis:
CKD and Cardiovascular Disease Risk
Why isn’t this routinely discussed in primary care?

Cardiovascular risk increases with CKD progression.

<table>
<thead>
<tr>
<th>CKD Progression (Estimated GFR)</th>
<th>Increasing Cardiovascular Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;=60</td>
<td>2.11</td>
</tr>
<tr>
<td>45-49</td>
<td>3.65</td>
</tr>
<tr>
<td>30-44</td>
<td>11.29</td>
</tr>
<tr>
<td>15-29</td>
<td>21.8</td>
</tr>
<tr>
<td>&lt;15</td>
<td>36.6</td>
</tr>
</tbody>
</table>

(Age-Standardized Rates of Cardiovascular Events)

CKD and Cardiovascular Disease Risk
Changing the Narrative Around CKD

A combination of eGFR and ACR testing is a strong predictor of CKD and cardiovascular mortality.

CKD Population Health

Impact of CKD Population Health at Indian Health Services

Barriers to CKD Care in Primary Care
Clinician Barriers to CKD Care

- CKD is asymptomatic in earliest stages
- Gap in clinician knowledge about CKD guidelines
- Challenges of staying current with evolving or competing guidelines
- Perceptions that intervention will not impact CKD progression
- Perceptions regarding overdiagnosis in older populations


Systems Barriers to CKD Care in Primary Care

- Healthcare system does not allow the time necessary for management of complex patients.
- Complex patients with other issues that are perceived as more pressing in the present moment.
- Limited computerized decision support for CKD
- Lack of available physician extenders to support team-based care for chronic disease patients

Systems Barriers to CKD Care in Primary Care

- Laboratory barriers contribute to confusion and lack of clarity around CKD testing
  - Gaps in awareness of tests for CKD assessment
  - Challenges with how tests are reported and interpreted
  - No simple methodology to order two tests for CKD assessment together

There is a disconnect between the measure reporting and evidence of basic CKD care.
Systems Barriers to CKD Care in Primary Care

• Existing Diabetic Nephropathy measure not reflective of optimal care:
  – Albuminuria OR
  – Use of ACE/ARB OR
  – Referral to nephrology OR
  – Evidence of attention to renal-related condition
Systems Barriers to CKD Care in Primary Care

Current Medical Attention to Diabetic Nephropathy Quality Measure may be overstating performance of CKD-related care processes

- **Composite Measure:**
  - Albuminuria, or
  - Use of ACE/ARB, or
  - Referral to nephrology, or
  - Evidence of attention to renal-related condition

- **Analysis suggests:**
  - 47% DM tested
  - 1% with ACE/ARB had evidence of microalbuminuria while 73% had CVD

Krause TM, Ganduglia-Cazaban C, Finkel KW. Rate for HEDIS Screening for Diabetic Nephropathy in Quality Measure May be Overstated. Managed Care 2018 August 2018.
How to Facilitate Smooth Transitions for the CKD Patient Population?
Reframe the CKD Conversation with Primary Care

What is Primary Care’s Reality?
Managing rising cardiovascular risk in their population.

• Reframing CKD in the context of rising cardiovascular risk can help with organizational buy-in.
• Emphasizing the relationship between cardiovascular disease and CKD can improve clinician engagement.

“CKD appeared to be a distinct diagnosis where practitioners were reluctant to use it as a ‘label’, with many being unsure of the benefits of disclosing the diagnosis, for fear of causing unintended anxiety. Confidence in managing CKD was lower than for hypertension and diabetes, with practitioners harboring doubts as to the significance of clinical guideline targets, such as blood pressure. Hence, successful sense-making was more challenging than with many other chronic diseases.”

# Remove Laboratory Barriers to CKD Care

## Population with uACR + eGFR – by health system

### Medical Attention for Nephropathy Measure: high performance

618,000 patients aged 18-89, with ≥ 1 visit with a PCP in 2018, and a Dx for DM (type-1 or type-2)

| Proportion of Patients | HCO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|------------------------|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| All HCOs               |     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                        | 55.8% | 60.0% | 59.4% | 56.2% | 54.2% | 50.5% | 50.3% | 50.0% | 49.3% | 48.0% | 47.3% | 45.9% | 45.7% | 43.7% | 43.6% | 43.5% | 42.6% | 42.3% | 42.3% | 42.0% | 38.7% | 36.8% | 36.1% | 34.1% | 33.4% | 27.0% | 27.8% | 9.5% |
Laboratory Engagement Initiative

Working collaboratively:

- Standardize use of CKD EPI equation for eGFR
- Rename “microalbumin” test to “albumin-creatinine ratio, urine”
- Standardize uACR reporting to mg/g
- Create laboratory specific “Kidney Profile” combining eGFR and uACR into one ordering unit
- Implement an awareness and education program regarding CKD with all ordering clinicians
Remove Laboratory Barriers to CKD Care

Don’t request just a serum creatinine to test adult patients with diabetes and/or hypertension for CKD; use the Kidney Profile (serum Creatinine with eGFR and urinary albumin-creatinine ratio.)

We need help recruiting additional laboratories
Remove Barriers to CKD Quality Assessment

Kidney Health Evaluation for Adults with Diabetes
Electronic Clinical Quality Measure (eCQM)

- Replace existing diabetic nephropathy measure in the comprehensive diabetes care measure set
- Recommends Kidney Profile (both eGFR and uACR) testing annually
- Both EHR & Plan measure

Measure available for public comment after February 24, 2020 at https://www.ncqa.org/about-ncqa/contact-us/public-comments/

Patients who received a kidney profile evaluation defined by an estimated Glomerular Filtration Rate (eGFR) AND urine Albumin-Creatinine Ratio (uACR) within a 12-month period

Patients aged 18-75 years with a diagnosis of diabetes with at least one outpatient visit within a 12-month period

Exclusions: Diagnosis of CKD stage G5 or ESRD and hospice enrollment

Population with uACR + eGFR – by health system

Medical Attention for Nephropathy Measure: high performance

uACR: low testing

618,000 patients aged 18-89, with ≥ 1 visit with a PCP in 2018, and a Dx for DM (type-1 or type-2)
Remove Clinician Barriers to CKD Care

• Bring data that illuminates opportunities to improve CKD recognition and quality of care.

• NKF can guide the data analysts through this process.
Not “what to do” – instead “how to do it”

CKD Change Package

CareFirst’s PCMH Program

– Seventh year of commercial region-wide operation
– Over 4,300 participating Primary Care Practitioners
– Nearly 1.1 million CareFirst Members
– Manages $5 billion a year in total spending
– $795 million in Net Savings since 2011 vs. Projected Costs
– Reduced trend for increased annual costs to 5.6% for the attributed population in 2016, compared to the trend of 9.8% for the same cohort in 2015
– 15,000 nurse-prepared care plans per year for high risk/high cost members
Kidney Function by Serum Creatinine Drives Costs

- As a standalone marker, abnormal creatinine results are a strong indicator of increased medical costs.

- Members with consecutive creatinine tests in consecutive years incur more cost than a typical member.

- Members with minimally abnormal creatinine incur more than double the costs of members with normal creatinine results. As expected, this trend continues and costs increase as the creatinine levels increases.

- Members with an additional abnormal metabolic result such as impaired glucose result or liver experience only slightly increased medical costs.

<table>
<thead>
<tr>
<th>Additional Abnormal Lab Result</th>
<th>Normal $&lt; 1.5\text{ mg/dL}$</th>
<th>Minimally Abnormal $\geq 1.5 &lt; 2.0\text{ mg/dL}$</th>
<th>Moderately Abnormal $\geq 2.0 &lt; 3.0\text{ mg/dL}$</th>
<th>Severely Abnormal $&lt; 3.0\text{ mg/dL}$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Members</td>
<td>Med PMPM</td>
<td>RX PMPM</td>
<td>Members</td>
</tr>
<tr>
<td>None</td>
<td>157,447</td>
<td>$567\phantom{100}$</td>
<td>$216\phantom{100}$</td>
<td>1,282</td>
</tr>
<tr>
<td>Impaired Glucose</td>
<td>50,123</td>
<td>$609\phantom{100}$</td>
<td>$316\phantom{100}$</td>
<td>1,010</td>
</tr>
</tbody>
</table>

ASCP Annual Meeting – October 2018
CKD Recognition in PCMH Program

- Total PCMH Population: 1100000
- Members with diagnosed CKD: 17000

- 51.6% Evidence of CKD - Risk Stratify
- 40.5% At Risk - Recommend Testing eGFR & ACR
- 7.9% Not Stratified
PCMH CKD Distribution of Pilot Panels

21 PCP panels - 128,000 patients - 17% identified with CKD

1. Encourage the eGFR and ACR testing of DM and HTN for diagnosis of CKD as early as possible.

2. Collaborate w/ PCPs to Identify Members with CKD and Stratify Risk

3. Implement a Care Plan based on Risk Stratification

4. Education for PCPs and LCCs by NKF
CKD Quality Improvement Intervention With PCMH Integration: Health Plan Results

This scalable CKD quality improvement study evaluated a population health intervention based on CKD risk stratification and demonstrated feasibility, decreased hospitalization, and corresponding selected reduced costs.

QUALITY IMPROVEMENT STUDY WITH PRE- AND POSTINTERVENTION ASSESSMENT, 7/1/15-6/30/17

Population

- 7420 PCMH outpatients with continuous CareFirst enrollment
- Risk Factors:
  - 19.1% with diabetes
  - 42.2% with hypertension
  - 38.2% both diabetes and hypertension
  - 0.5% with CKD (no diabetes or hypertension)

Intervention

- CKD heat map risk stratification by eGFR and uACR informs NKF-guided intervention
- Nephrology services by heat map class, pre- vs post:
  - 3: 39% vs 34%
  - 4: 72% vs 62%
  - 5: 63% vs 83%
- Mean visits in class 5, pre- vs post: 4.4 vs 12.4

Results

- Hospitalizations per 1000 members by heat map class, pre- vs post:
  - 3: 362.5 vs 249.0
  - 4: 311.7 vs 219.2
  - 5: 590.9 vs 323.5

- Per-member per-month expenditures by heat map class, pre- vs post:
  - 3: $276 savings
  - 4: $267 loss
  - 5: $480 savings

CKD indicates chronic kidney disease; eGFR, estimated glomerular filtration rate; NKF, National Kidney Foundation; PCMH, patient-centered medical home; uACR, urine albumin creatinine ratio. Limitations include incomplete urinary testing, quality improvement design not powered to precisely quantify expenditures, and generalizability may be limited to PCMH models.

Remove Barriers to CKD Patient Engagement

Heart your kidneys
Most people don’t think twice about their kidneys. But when kidneys stop working, dialysis or transplant is needed to survive. So Heart Your Kidneys and give them the attention they deserve.

Take control of your kidney health.
Answer a few questions and we’ll provide you with personalized information about kidneys and your health.

Have you been told you have diabetes?
- Yes
- No
- I don’t know

NEXT

Online patient education curated by CKD stage and comorbidities:
https://www.kidney.org/phi/form?version=health
Kidney Disease Risk Awareness Campaign

All campaign touchpoints will lead consumers to minuteforyourkidneys.org, which is the hub of the campaign that contains the call to action to take the Kidney Disease Risk Quiz.

Are you the 33%?
Partnership activations with mission-sharing organizations will amplify our reach and awareness among the partnering organizations’ audiences.

Campaign toolkit consisting of creative assets, sample social media posts, video PSAs and other items to be shared with the partnering organizations which demonstrate the organization’s support for the campaign. To earn the campaign seal, organizations will need to use the toolkit on their digital channels and strictly adhere to the branding guidelines.
For more information:

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