Medicare Shared Savings Program ACO Learning System

Strategies to Improve Care for Individuals with Chronic Kidney Disease (CKD) and End-Stage Renal Disease (ESRD)

Thursday, October 13, 2016
2:30 – 4:00 PM ET

Audio for this session can be streamed through your computer, or accessed by phone by dialing 1-857-232-0156; access code: 271840
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Furthermore, to the extent that we may seek to gather facts and information from you during this call, we intend to gather your individual input. CMS is not seeking group advice.
Past Webinar Materials

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• Advancing Primary Care – 11/14/14
• Beneficiary Engagement – 10/22/14
• Beneficiary Engagement and Annual Wellness Visits – 8/19/15
• Care Coordinator Roundtable – Session 1 – 9/30/15
• Care Coordinator Roundtable – Session 2 – 10/14/15
• Coordinating Care for Beneficiaries with Complex Care Needs – 6/24/15
• Coordinating with Hospitals and Specialists – 12/15/14
• Coordinating with Post-Acute Care Providers – 11/21/14, 11/19/15
• Engaging Office Managers in ACOs – 12/10/15
• Engaging Pharmacists in Accountable Care – 7/19/16
Past Webinar Materials (cont.)

- Evidence-Based Medicine – 1/7/14, 1/24/14
- Internal Cost and Quality Reporting – 4/17/14, 5/22/14
- Lessons from GPRO Reporting – 1/17/14, 10/28/14, 10/28/15, 9/27/16
- Lessons Learned from the Million Hearts Initiative – 7/29/15
- Leveraging Community Resources and Addressing Bene Social Needs – 9/14/16
- Provider Engagement – 9/9/14, 10/1/14
- Strategies of SSP ACOs Achieving Interim Savings – 4/4/14, 4/11/14, 5/2/14, 5/16/14
- Strategies of SSP ACOs Achieving Shared Savings – 4/15/15, 4/29/15, 5/12/15, 5/19/15, 1/7/16
- Using Data to Drive Performance – 6/8/15, 5/19/16

In the ACO portal, materials for these and other webinars are located in the Events Calendar, and Program Announcements section, under “Learning System Webinar Materials”
Webinar Agenda

• Housekeeping items
• Welcome from CMS
• Presentations:
  – Dialysis Clinic, Inc. (ESCO)
  – Duke Connected Care ACO (SSP)
• Questions and answers
• Wrap-up
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Welcome from CMS

• Featured topic
• Comprehensive ESRD Care model and brief
• Upcoming events
• Thank you!
Dialysis Clinic, Inc. (ESCO)

Doug Johnson, MD
Vice Chairman of the Board
Dialysis Clinic, Inc.

- Largest non-profit dialysis provider in the U.S.
- Founded in 1971 (45 yrs ago)
- Serving over 19,000 patients with kidney disease
  - Over 4,000 patients with chronic kidney disease (CKD)
  - Over 15,000 patients on dialysis
- In more than 230 clinics
- Across 28 states
ESRD Seamless Care Organization (ESCO)

Started October 1, 2015:

- 13 ESCOs total
  - DCI – 3 ESCOs
    - Metropolitan Kidney Care Alliance (NJ, Staten Island, NY)
    - Music City KCA (Middle TN)
    - Palmetto KCA (Spartanburg, SC)

- DCI cares for 4% of patients on dialysis in the US, is responsible for 23% of the ESCOs
Everyone Has a Seat at the Table, and We are Using Ours

“When CMS is changing the rules, you want a seat at the table.

If you don’t have a seat at the table, you may be on the menu.”

* This statement does not reflect the view of CMS or CMMI
Plan To Improve Care For Patients with Kidney Disease

1. Increase CKD Care Coordination

2. Decrease hospitalization ($25,000 per hospitalization)*

3. Increase home dialysis ($11,000 per patient per year)**

4. Decrease catheters ($26,000 per patient per year)**

5. Improve care for end of life

* Analysis of Medicare 5% Claims Data by The Gorman Health Group for DCI.
**DCI analysis of claims data. Results preliminary, subject to change.
Decrease Hospitalization

- Total Cost Of Care Per Patient on dialysis (Medicare, 2013):
  - Hemodialysis: $84,550 (90% of patients on dialysis)
  - Peritoneal Dialysis: $69,919 (10% of patients on dialysis)

- Hospitalization is 37% of cost of care for patients on dialysis
  - $30,825 per patient on hemodialysis
  - $25,491 per patient on peritoneal dialysis

- If decrease by 10%, would save more than $3,000 per patient on hemodialysis

* 2015 USRDS ADR
Claims Data Analysis Hospital Admissions PPPY
Music City Kidney Care Alliance

DCI analysis. Results preliminary, subject to change
Claims Data Analysis Acute Days PPPY
Music City Kidney Care Alliance

DCI analysis.
Results preliminary, subject to change
Improve Care for End Of Life

Currently, poor transition
* ESRD: 32.3% die in ICU
* Cancer: 13.4%
* Dementia: 8.9%*

High Cost Of Care, DCI ESCOs:
* Month That Died:$21,030
* Other Patients: $6,264**

ESCO – Opportunity To Improve Transition
* Beneficiaries stay in model when start hospice
* Music City Kidney Care Alliance Owners
  ➢ Alive Hospice
  ➢ Aspire Healthcare (palliative care)

* Wachterman et al. Quality of End-of-Life Care Provided to Patients With Different Serious Illnesses. JAMA. Published online June 26, 2016.
** DCI analysis of claims data. Results preliminary, subject to change.
Improved Care For Patients With Chronic Kidney Disease

• Primary goal of Reach Kidney Care is to make it less likely that a patient needs dialysis

• Additional Goals:
  ➢ Improve care for patients at all stages of kidney disease
  ➢ For those who progress to next step in care, empower patients to make best choice for therapy

  ➢ Reach Kidney Care is in direct competition with our dialysis business

• DCI is following 4,000 patients in 29 different locations in 16 states

• One-on-one, in person care coordination
  ➢ First visit up to 1 ½ hours

• Ideally located in physician’s office

• Have built CKD specific EMR

• Progress note to physicians after each visit

• Electronic patient outreach (RoundingWell)

• Data Integration Platform

* DCI is currently managing more than 550 patients with Stage 5 CKD, not on dialysis
Cost of CKD

Point prevalent distribution & annual costs of Medicare (fee-for-service) patients, age 65 & older, with diagnosed diabetes, CHF, & CKD, 2011. Source: USDRDS ADR 2013, Figure 7.1 (Volume 1)
Breakdown of Cost for Medicare 65+ with CKD and Other Comorbidities

Cost of CKD by Comorbidity
- Patient with CKD: $21,909
- Patient with CKD, CHF: $34,715
- Patient with CKD, DM, CHF: $38,230

(Average cost of patient on Medicare: $10,854)

Cost of CKD by Stage
- CKD 3: $23,680 per year
- CKD 4: $33,374 per year
- CKD 5: $36,147 per year
- CKD 5 on Dialysis: $84,645 per year

➢ Save more than $4,000 for each month that push back start of dialysis

Source: 2015 USRDS ADR, vol. 1, table 6.1,

Source: 2013, 5% Medicare Claims data set
Chronic Kidney Disease (CKD) Overview

* GFR (glomerular filtration rate) is an estimate of kidney function. A GFR of 50 essentially means that a patient has 50% of their kidney function.
* Effective CKD management can delay or even prevent the need for dialysis.
* We estimate that optimal time to start intervening is a GFR of 45 (Late Stage 3)
* Patients typically need to start dialysis at some point after GFR is < 15
  > Most patients from our best program start at GFR 5-10
* Nationwide, 12.6% of patients start at GFR > 15 (Stage 4)

For every 1 million Medicare patients...

<table>
<thead>
<tr>
<th>Stage</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Stage 3 CKD</td>
<td>14,750</td>
</tr>
<tr>
<td>Early Stage 4 CKD</td>
<td>3,200</td>
</tr>
<tr>
<td>Late Stage 4 CKD</td>
<td>1,600</td>
</tr>
<tr>
<td>Stage 5 CKD, not on dialysis</td>
<td>1,400</td>
</tr>
<tr>
<td>Total CKD</td>
<td>20,950</td>
</tr>
</tbody>
</table>

In addition, 359 patients transition to renal replacement therapy each year.
CKD Care Coordination
Late Stage 3 (GFR 30-45)

• Only 8.4% of patients with Stage 3 CKD know that they have CKD
• Our goal is to raise patient awareness and work with patients to slow progression of kidney disease.
  ➢ “You are half-way to the dialysis clinic. We would like to work with you to help you stay off dialysis.”
How Can You Improve Your Health?

- Diabetes
- Hypertension
- Smoking cessation
- Weight loss
- Exercise
- Avoid NSAIDS
Pre-emptive Transplant

We see transplant as the ideal therapy for someone at the transition in care

• Currently only 2.6% of patients receive a pre-emptive transplant
• After year of transplant, cost of care $54,630 less than hemodialysis*

We can quadruple pre-emptive transplant rate

* Northwell: > 10% pre-emptive transplant rate
* Rogosin Institute: 18% pre-emptive transplant rate

* 2015 USRDS ADR
Medical Management Without Dialysis
Spartanburg, SC

- 100 patients with GFR < 20
  - 24 patients have chosen medical management without dialysis

- More than 94% of these patients do not start dialysis
**Nationwide:**
- 12.6% of patients start dialysis with a GFR ≥ 15
- A total of 14,357 patients in 2013

**Spartanburg, since 1/1/2014:**
- 101 patients started dialysis from our CKD program
- **ZERO** patients started with a GFR > 15
- Most patients started GFR 5-10

If we could delay start by just 2 months for those patients who started with GFR ≥ 15, could save CMS more than $110 million per year.
### How Patients Start Dialysis

<table>
<thead>
<tr>
<th>How Patients Start Dialysis</th>
<th>Typical Start</th>
<th>CKD Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Dialysis</td>
<td>9.3% *</td>
<td>37%</td>
</tr>
<tr>
<td>For In Center, Permanent Access</td>
<td>20% *</td>
<td>68%</td>
</tr>
<tr>
<td>Avoid First Hospitalization</td>
<td>33% **</td>
<td>67%</td>
</tr>
</tbody>
</table>

* 2015 USRDS ADR
Empowering Patients To Live Their Dreams
Any Questions?

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(615) 342-0435
Questions & Answers

• Please submit questions through the Q&A panel/widget
Duke Connected Care ACO (SSP)

Blake Cameron, MD, MBI
Nephrologist for Duke Connected Care ACO

Genie Komives, MD
Senior Medical Director for Duke Connected Care ACO

Kevin Shah, MD, MBA
Director of Primary Care Innovation and Improvement for Duke Primary Care
Stop CKD: A Population Approach to Chronic Kidney Disease Care

Blake Cameron, MD, MBI
Duke Nephrology
Physician-led ACO
300 Primary Care Physicians & 1,400 Specialist Physicians
11 Participants, including a hospital system, FQHC and RHC
85% attribution based off one EMR

2014 Track 1 MSSP
50,000 beneficiaries

2015 Cigna Collaborative ACO
17,000 members
A Patient Story

Kidney Function (%)

Age (years)
47 y/o man with diabetes and high blood pressure

Kidney function normal, but routine testing shows early signs of kidney damage
3 years later – age 50

Kidney function now 30%
Referral needed ASAP (if not before)
Age 51
Referred to nephrology
“Doc, how come no one ever told me?”
Three months later, he begins emergency dialysis.
Missed Opportunities:
To prevent kidney failure
To prepare for kidney failure
Why Chronic Kidney Disease?

1. Complex, progressive illness that is under-recognized and under-treated

2. Large burden of disease

3. Catastrophically expensive if untreated
The time to intervene is **BEFORE** the transition to ESRD.
Our Process

Identify CKD
- EHR-based condition definition
- Claims analysis

Stratify Risk
- Kidney failure risk equation

Target Interventions
- Nephrology referral
- E-consults
- and others...

$1,097,443
Potential Annual Savings*
THE KIDNEY FAILURE RISK EQUATION

Find out your real risk of kidney failure

Facts & Figures of Chronic Kidney Disease (CKD)

CKD Stages

Your kidneys’ primary function is to filter and excrete waste products. To find out how well your kidneys are doing, we measure the quantity of...

GFR Glomerular Filtration Rate

This is a test used to check how well the kidneys are working by estimating how much waste is in your blood. The more waste products in your blood the...
Kidney Failure Risk Scores

Layer of Flags & Filters

- eGFR rate of decline
- Metastatic Cancer
- Deceased
- ESRD
- Nephrology Visits
- CKD
- Geography

Transplant Evaluation

Rounding List
Population Rounding Team

Blake Cameron, MD
Nephrologist & Informaticist

Ben Smith, PharmD
Pharmacist

Genie Komives, MD
PCP & DCC Senior Medical Director

Jackie Healy
DukeWELL
Care Coordination

Christina Crosby
DukeWELL
Care Management
*Nephrology Referral*
Nurse-led Care Management
Medication Management
Dialysis Preparation
Dietary Counseling
Transplant Evaluation
Other Interventions...
1. Multi-disciplinary team including nephrologist, PharmD, PCP and others
2. Care management infrastructure and practice liaisons
3. Analytics support for data integration and report generation
Goals and Metrics

**CLINICAL**
- Prevent “crash start” dialysis initiation
- Increase rate of pre-dialysis nephrology care for patients with high risk CKD

**FINANCIAL**
- Translate clinical improvements to cost savings

**IP/OPERATIONS**
- Combine clinical and claims data for analytics
- Framework for scale

**CULTURE**
- Collaboration between specialists, PCPs, care managers and analytics teams
Deployed validated risk model using clinical and claims data

Determined most actionable risk segment: those with 30-60% 5-year risk of developing ESRD

Developed process for multidisciplinary case review and referral to specialty care

Continual refinement of predictive model and patient review process

Program evaluation underway
DEFINITIONS

CKD:
Baseline eGFR below 60mL/min

High risk CKD:
5-year ESRD risk >15%

Excluded patients:
Not CKD
Not High Risk
Already ESRD
Already seeing nephrologist
Limited life expectancy
Outside primary service area
Lessons Learned (1/2)

• Data integration:
  – Do not underestimate the need for “data janitors.” Quality of EHR and claims data not ideal and require significant effort to clean.
  – Don’t let perfect be enemy of the good. Prediction needs only be “good enough.”

• Multi-disciplinary care management:
  – Relationship between “virtual” specialist and front-line providers must be cultivated
  – Seeing a nephrologist does not guarantee a good outcome
Lessons Learned (2/2)

• Communication & Messaging:
  – Patients often unaware or in denial of diagnosis – resist specialty care
  – Inconsistent messaging to patients. For example, lab result letters often say “your kidney function is stable” or “labs look good” when in reality they’re not.

• Referrals:
  – As many as 30% of referrals fail. Labor intensive process to shepherd through to completed visit. Failed referrals correlate with risk.
  – Front-line providers and MSSP often have no idea whether patients are actually seeing outside specialists.
Next Steps

• Cultivate new relationship between PCPs and Specialists to optimize utilization and referral
  – ”Virtual Medical Neighborhood” pilot program with CKD Help Desk and E-Consultations

• Easing ESRD transitions – Nephrology referral not enough
  – Augment nephrology care with advanced CKD care management

• Coherent care management – building multi-specialty collaborations and joint prediction models

• Promote all-payer initiatives within our health systems
  – 10% of ESRD cohort newly attributed but not new to Duke (opportunity is upstream while covered by other payers)
• Duke Connected Care
  – Daniel Costello
  – Genie Komives
  – Stephanie Brinson
  – Karthik Shyam
  – Dev Sangvai

• DukeWELL
  – Christina Crosby
  – Jackie Healy
  – Care managers
  – Care coordinators

• Duke Statistics
  – Joe Futoma
  – Katherine Heller

• Duke Institute for Health Innovation
  – Mark Sendak
  – RJ Andrews
  – Will ElLaissi
  – Suresh Balu

• Duke Translational Research Institute / CTSA
  – Ebony Boulware

• Duke Nephrology
  – Stephen Smith
  – Uptal Patel

• Duke Primary Care
  – Kevin Shah
  – John Anderson
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Questions & Answers

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Please give us your feedback!

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