Health Care Quality Improvement Program (HCQIP)

- The Center for Medicare & Medicaid Services (CMS) contracts with 18 ESRD Network Organization throughout the United States
- The ESRD Network perform oversight activities to assure appropriateness of services and protection for ESRD patients.
- This approach has been named the ESRD Health Care Quality Improvement Program (HCQIP)
End Stage Renal Disease Networks
Number of Prevalent ESRD Patients in the US
**ESRD Network National Goals**

- Improve the quality of health services & quality of life for ESRD beneficiaries
- Improve data reporting, reliability, & validity between providers, NWs, and CMS
- Evaluate and resolve patient grievances
- Support the marketing, deployment, and maintenance of CMS approved software

*CMS, ESRD NW Organization Manual*
ESRD Network National Goals

- Establish & improve partnerships & cooperate activities with
  - Providers & Owners
  - NWs, Quality Improvement Organizations (QIOs)
  - State Survey Agencies
  - Professional Groups & Patient Organizations

CMS, ESRD NW Organization Manual
Network Cannot Help With The Following:

- Recommendations on specific doctors or clinics
- Financial assistance
- Transportation service
- Licensing dialysis facilities or staff
- Obtaining medical insurance
- Tracing payments or status of applications
- Networks are not CMS or SSA (State Survey Agencies)
Clinical Performance Goals

- Provides measurement tool to assess facility patient care processes and outcomes, and identify opportunities for improvement.
- The Network goal is to combine efforts with renal facilities to improve performance in the delivery of quality patient care
Goals Established by the ESRD Networks based on:

- Past performance
- CMS thresholds
- NKF/KDOQI Clinical Practice Guidelines
- The expectation is that facilities not meeting expected performance standards develop internal quality monitors to promote continuous improvement
Quality Improvement Activities with Providers

- CMS-approved QIPs (Fistula First)
- Clinical Performance Measures Project (CPM)
- Network-Specific Projects
- Annual Lab Data Collection Project
- Facility Specific QI Projects
- Technical Assistance
- Internal QI Program
What is the cost of Poor Quality?

- No show rates?
- Lost charts?
- Lost labs?
- Train wreck visits?
- Lost revenue – improper billing?
- Staff turnover?
ESRD Clinical Performance Measures (CPM) Project:

- National effort led by CMS and 18 ESRD Networks that started in 1994
- Random sample of patients that are representative of each Networks
- For HD patients – (October-December 2007)
- For PD patients – (October 2007- March 2008)
- Upcoming CPM data collection:
  - for HD patients – January-March 2009
  - for PD patients - January – June 2009
Five Major Domains of Care:

- Adequacy of Dialysis
- Anemia Management
- Nutritional Status
- Bone and Mineral Metabolism
- Vascular Access
Adequacy of Dialysis

- Numerous outcome studies have demonstrated a correlation between the delivered dose of hemodialysis and patient mortality and morbidity.
- Pre and post-dialysis blood urea nitrogen (BUN) levels were drawn and reported to calculate URR results.
- Kt/V was calculated using the pre- and post BUN, post dialysis weight, and time on dialysis.
Adequacy of Dialysis: adult HD pts (U.S.)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>CMS Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean URR</td>
<td>73.0</td>
<td>73.2</td>
<td>≥ 65</td>
</tr>
<tr>
<td>% of Pts with mean URR ≥ 65</td>
<td>87%</td>
<td>89%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Data source: 2007 & 2008 CPM Study
# Adequacy of Dialysis Adult HD pts (Kt/V)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>CMS Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Kt/V</td>
<td>1.55</td>
<td>1.56</td>
<td>≥ 1.2</td>
</tr>
<tr>
<td>% of Pts with mean Kt/V ≥ 1.2</td>
<td>90%</td>
<td>89%</td>
<td>80%</td>
</tr>
</tbody>
</table>

**Compliance to the Kt/V Measure**

- **2007**: 90%
- **2008**: 89%
- **CMS Goal**: 80%

**Data source**: 2007 & 2008 CPM Study
**US: 2007 CPM Results Pediatric HD**  
**Patients: Adequacy of Dialysis**

<table>
<thead>
<tr>
<th>% of Pts with a mean sp. Kt/V ≥ 1.2</th>
<th>91%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean sp. Kt/V</td>
<td>1.62</td>
</tr>
<tr>
<td>Mean dialysis session length</td>
<td>203</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of Pts with a mean sp. Kt/V ≥ 1.8</th>
<th>87%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean weekly Kt/V for CAPD patients</td>
<td>2.20</td>
</tr>
<tr>
<td>Mean weekly Kt/V for cycler patients</td>
<td>2.52</td>
</tr>
</tbody>
</table>

*Data source: 2007 & 2008 CPM Study*
## Dialysis Session Time: U.S.

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% Pts with mean Kt/V &gt; 1.2</td>
<td>89</td>
<td>89</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>90</td>
<td>91</td>
</tr>
<tr>
<td>Median Kt/V</td>
<td>1.49</td>
<td>1.52</td>
<td>1.53</td>
<td>1.55</td>
<td>1.55</td>
<td>1.55</td>
<td>1.56</td>
</tr>
<tr>
<td>% Pts with mean URR &gt; 65%</td>
<td>84</td>
<td>86</td>
<td>87</td>
<td>88</td>
<td>88</td>
<td>88</td>
<td>89</td>
</tr>
<tr>
<td>Median URR</td>
<td>71.5</td>
<td>72.4</td>
<td>72.6</td>
<td>73</td>
<td>73</td>
<td>73</td>
<td>73.2</td>
</tr>
<tr>
<td>Median Blood Flow Rate</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Medican Treatment Time (min)</td>
<td>212</td>
<td>213</td>
<td>213</td>
<td>213</td>
<td>213</td>
<td>212</td>
<td>213.7</td>
</tr>
</tbody>
</table>

Data source: CPM Study (2002 – 2008)
## Anemia Management Adult HD pts (Hgb)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>CMS Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Hgb</td>
<td>12.1</td>
<td>11.9</td>
<td>≥ 11.0</td>
</tr>
<tr>
<td>% of Pts with mean Hgb &gt; 11.0</td>
<td>84%</td>
<td>82%</td>
<td>70%</td>
</tr>
</tbody>
</table>

### Compliance to the Hgb Measure

![Hgb Compliance Chart]

- **2007**: 84%
- **2008**: 82%
- **CMS Goal**: 70%

*Data source: 2007 & 2008 CPM Study*
Anemia Management:
(Souse: Phase III CMP effective April 1, 2008)

- Assessment of Iron Stores
- Hemoglobin (Hgb) control for patients receiving ESA (Erythropoietin Stimulating Agents) therapy (target- 10-12 g/dL)
- Hematocrit (Hct) control for patients receiving ESA therapy (30-36%)
- Closely monitoring Hgb & Hct levels below target minimum

<table>
<thead>
<tr>
<th>Median Hgb (g/dl)</th>
<th>Hgb &gt; 11</th>
<th>Hgb 11-12</th>
<th>Hgb &lt; 10</th>
<th>Hgb 10-12</th>
<th>Hgb &gt; 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.90</td>
<td>82</td>
<td>39</td>
<td>5</td>
<td>50</td>
<td>45</td>
</tr>
</tbody>
</table>
### 2007 CPM Results Pediatric HD Patients: Anemia Management

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>69%</td>
<td>% of Pts with mean Hgb &gt; 11.0 G/DL</td>
<td></td>
</tr>
<tr>
<td>11.5</td>
<td>Mean Hgb (g/dl)</td>
<td></td>
</tr>
<tr>
<td>76%</td>
<td>% of Pts with mean TSAT ≥ 20%</td>
<td></td>
</tr>
<tr>
<td>82%</td>
<td>% of Pts with mean serum Ferritin ≥ 100 ng/ml</td>
<td></td>
</tr>
<tr>
<td>19%</td>
<td>% of Pts with mean Serum Ferritin &gt; 800%</td>
<td></td>
</tr>
</tbody>
</table>

*Data source: 2007 CPM Study*
## Nutritional Status Adult HD patients

**(Serum Albumin)**

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>CMS Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Serum Albumin BCG (g/dl)</td>
<td>3.8</td>
<td>3.83</td>
<td>-</td>
</tr>
<tr>
<td>Mean Serum Albumin BCG (g/dl)</td>
<td>3.5</td>
<td>3.47</td>
<td>-</td>
</tr>
<tr>
<td>% of pts with mean Serum Albumin ≥ 3.5/3.2 (BCG/BCP)</td>
<td>81%</td>
<td>82%</td>
<td>80%</td>
</tr>
</tbody>
</table>

### Compliance to the Serum Albumin Measure

**Data source: 2007 & 2008 CPM Study**
### Bone and Mineral Metabolism: Adult HD pts

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>CMS Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Calcium</td>
<td>9.3</td>
<td>9.26</td>
<td></td>
</tr>
<tr>
<td>% of Pts with adjusted Calcium between 8.4 and 10.2</td>
<td>83%</td>
<td>82%</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>CMS Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Phosphorous</td>
<td>5.2</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>% of Pts with mean Phosphorous between 3.5 and 5.5</td>
<td>53%</td>
<td>52%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Data source: 2007 & 2008 CPM Study
Vascular Access Clinical Performance Measures: Facility Level

- Minimize use of catheters as Chronic Dialysis Access
- Maximize placement of Arterial Venous Fistula (AVF)
 Functional AVF or referral to vascular surgeon for placement

 Catheter patients referral to vascular access for evaluation for permanent access at least once during 12 months reporting period

 Percentage of patient with advanced chronic disease (CKD stage 4 or 5) or ESRD receiving AVF
## 2007 CPM Results: Vascular Access

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>CMS Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Prevalent Pts with AVF</td>
<td>45%</td>
<td>49%</td>
<td>66%</td>
</tr>
<tr>
<td>% Prevalent Pts with AVG</td>
<td>23%</td>
<td>22%</td>
<td>24%</td>
</tr>
<tr>
<td>% Prevalent Pts with Catheter</td>
<td>22%</td>
<td>21%</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>Stenosis Monitoring of AVG</td>
<td>68%</td>
<td>71%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Compliance to Vascular Access Measures

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>CMS Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVF</td>
<td>46%</td>
<td>49%</td>
<td></td>
</tr>
<tr>
<td>AVG</td>
<td>23%</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Catheter</td>
<td>22%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Stenosis</td>
<td>10%</td>
<td>66%</td>
<td></td>
</tr>
<tr>
<td>Monitoring</td>
<td>68%</td>
<td>71%</td>
<td>100%</td>
</tr>
</tbody>
</table>
What is the most visible vascular access QI project in the United States??

- Fistula First (Fistula First Breakthrough Initiative)
“Fistula First” GOAL

Goal is to maximize autogenous AVF construction & success rate…..
To achieve in the shorter term (2006) the initial K/DOQI minimum benchmark of AVF use in 40% of prevalent patients….
And in the long-term (2009), a 66% AVF rate in prevalent patients
Additional Goal: Reduce Catheter Use!
**Fistula First Change Concepts**

1. Routine CQI Review of vascular access
2. Timely referral to nephrologist
3. Early referral to surgeon for “AVF Only”
4. Surgeon Selection
5. Full range of appropriate surgical approaches
6. Secondary AVFs in AFG patients
7. AVF evaluation/placement in catheter pts
8. Cannulation training
9. Monitoring and maintenance
10. Continuing Education
11. Outcomes feedback
Improvement in Prevalent AVF Rates by ESRD Network

FFBI AVF goal 66%

Data Source: FFBI Dashboard
Important Elements of Vascular Access Care: What can you do?

- Physical assessment of vascular access
- Vascular Access Monitoring & Surveillance Program
- Stenosis monitoring for both AVG and AVF
- Proactive referral for intervention based on the monitoring results
- Improve your cannulation skills (Cannulation Training DVD)
New ESRD CPM Measures:

- Influenza vaccination
- Patient Education, Perception of Care, and Quality of Life
- Patient Survival
Dialysis Facility Compare Website

- Located at www.Medicare.gov
- List of all Facilities in Country
- Dialysis facility characteristics
- Quality measures
- Helpful contacts and links
Medicare
The Official U.S. Government Site for People with Medicare

Medicare Premiums and Coinsurance Rates for 2009

View an online demonstration on how to use the Prescription Drug Plan Finder

Medicare Prescription Drug Coverage

➤ Medicare Prescription Drug Plans - 2009 Plan Data

➤ Medicare Health Plans - 2009 Plan Data

➤ Formulary Finder - 2009 Plan Data

➤ Lower Your Costs During the Coverage Gap

➤ Learn More About Plans in Your Area

Medicare & You 2009
Condition 494.110:
Quality Assessment and Performance Improvement Project (QAPI)

- Interdisciplinary team (IDT)
- Under leadership of Medical Director and Quality Improvement committee
- Outcome-focused & data driven
- Process continuous & on-going
- Use community accepted standards as targets
- Requires RN and interdisciplinary team participation
- CHTs are team members too – get involved!
Interdisciplinary Team:

Show Me
The Progress:
Plan-Do-Study-Act: Close the loop!
Plan-Do-Study-Act

- **Plan** – Identify Opportunity and plan for change
- **Do** – Implement the Change on a small scale
- **Study** – Use data to analyze for the change and determine whether it made a difference
- **Act** – If the change was successful, implement the plan and continuously monitor results. If the change did not work – start the process again.
PDSA Time Distribution

- Act: 20%
- Plan: 40%
- Study: 20%
- Do: 20%
Developing Your Goal

- Write a clear goal statement—make the target for improvement unambiguous
- Include numeric goals
- Set “stretch” goals
- Focus on issues that are important to your organization
  - choose appropriate goals

Examples: “≥ 85% of patients to have Kt/V of 1.2 or more by June 30, 2009”

“100% of new patients with catheters to be evaluated for AVF placement within 30 days after initiation of dialysis”
Monitoring Performance Improvement

V638: The facility must:
- Continuously monitor its performance
- Take actions that result in performance improvement
- Track to assure improvements are sustained over time
**Performance Measures: include but not limit to:**

<table>
<thead>
<tr>
<th>(V629) Adequacy</th>
<th>Kt/V, URR</th>
</tr>
</thead>
<tbody>
<tr>
<td>(V630) Nutrition</td>
<td>Albumin, body weight</td>
</tr>
<tr>
<td>(V631) Bone disease</td>
<td>PTH, Ca+, Phos</td>
</tr>
<tr>
<td>(V632) Anemia</td>
<td>Hgb, Ferritin</td>
</tr>
<tr>
<td>(V633) Vascular access</td>
<td>↑Fistula, ↓catheter rate</td>
</tr>
<tr>
<td>(V634) Medical errors</td>
<td>↓Frequency of specific errors</td>
</tr>
<tr>
<td>(V635) Reuse</td>
<td>↓Adverse outcomes</td>
</tr>
<tr>
<td>(V636) Pt satisfaction</td>
<td>↑Survey scores</td>
</tr>
<tr>
<td>(V637) Infection control</td>
<td>↓Infections, ↑vaccination status</td>
</tr>
</tbody>
</table>
In Summary:

- ESRD Clinical Performance Measures are to support and monitor quality of care given to dialysis patients
- New ESRD CFC require participation by all team members
- Opportunities to engage: vascular access manager, patient education, infection control, and many more!
- Any question/concerns, please call your Network for help or visit the website
The Networks are Here to Help You…

www.esrdnetworks.org
Welcome to the ESRD Network Forum Website

The Forum of ESRD (End-stage Renal Disease) Networks advocates for the organizations that monitor the quality of chronic kidney disease, dialysis and kidney transplant care in the United States.

Click on a Network to visit its website.
Svetlana (Lana) Kacherova
Quality Improvement Director
skacherova@nw18.esrd.net

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