

Pursuing Excellence in Care Transitions – Enhancing Safety in Kidney Patient Care

James E. Hartle, M.D.

Director of Nephrology
Geisinger Medical Center
Geisinger Health System



Disclosures

- Nothing to disclose

Objectives

- To understand the need for transitions of care
- To demonstrate examples of transition programs that have made a clinical impact
- To suggest opportunities that dialysis caregivers can have in their patients transitions of care

Why Implement Changes?

- > 75% of Medicare spending occurs in patients with 4 or more chronic diseases. (CBO)
- 25% of Medicare beneficiaries consume 85% of the Medicare expenditures. (CBO)
- ESRD population (0.7% of the Medicare population) consumes 7% of Medicare spending. (USRDS)

Why Implement Changes?

- 70% of American adults believe there is a need for major reform (CMWF 2011)
 - Inadequate access to care
 - Poorly coordinated care
 - Excessive cost
 - Administrative burdens

Why Implement Changes?

- Many of the defects in the current health care system stem from its disorganization (Millbank Q.)
- Poorly coordinated, fragmented care tends to be:
 - Inefficient
 - Ineffective
 - Error-ridden
 - Costly
- An entity charged with coordinating care clearly could have a major impact on the quality of health care

Why Implement Changes?

- Focus of CMS
- CMS's Triple Aim
 - To improve the patients experience of care
 - To improve the health of the population
 - To reduce the per capita cost of health care

Examples of Transitions of Care That Have Made a Clinical Difference



Geisinger Medical Center Danville Campus



What is Geisinger?

- Largest Rural Health Care System in the U.S.
- Approximately 3 million people in service area
 - > 48,000 inpatient admissions/year
 - > 2.0 million outpatient encounters/year
- 900+ Physicians, 450+ Advanced Practitioners
- 60+ Community Practice sites
- 6 Hospitals
- 270,000+ member health plan
- Healthcare IT and Informatics
 - EPIC in Ambulatory Clinics since 1996
 - EPIC in Inpatient Arena since 2007

Geisinger ProvenHealth

- Five Core Components
 - Patient-centered Primary Care
 - Chronic disease optimized via HIT
 - Integrated Population Management
 - Population segmentation and risk stratification
 - Medical Neighborhood
 - 360 degree care systems – SNF, ED, hospital, clinic, etc
 - Embedded case manager

Geisinger ProvenHealth

- Quality
 - Comprehensive chronic disease bundled metrics
- Value-based Reimbursement

Geisinger ProvenHealth

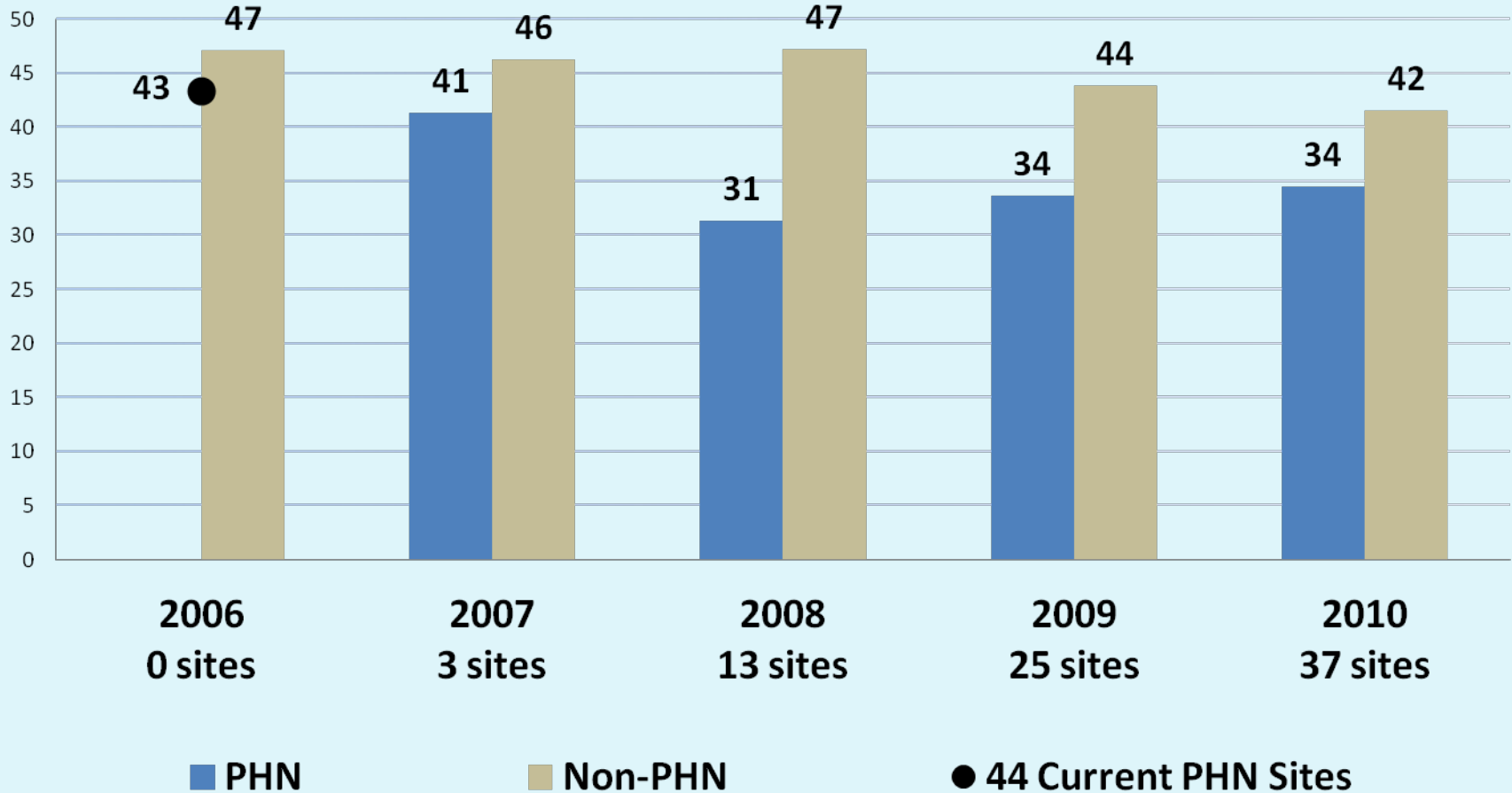
- Embedded Case Manager
 - Facilitates Transitions of Care
 - Between hospital, ED, SNF, clinic, etc
 - Links health care team to patient/family
 - Focuses on high risk patients
 - Not disease management focused
 - 125-150 patients per Case Manager

Results for Nursing Home

Nursing Home	Baseline Readmissions 2008	PY 1 Readmissions 2009	Reduction
A	34%	18.5%	- 45.5%
B	18.5%	14.5%	- 21.6%
C	27%	9%	- 66.6%
D	44%	33%	- 25%
E	42.5%	31%	- 27%
F	27.5%	24%	- 12.7%

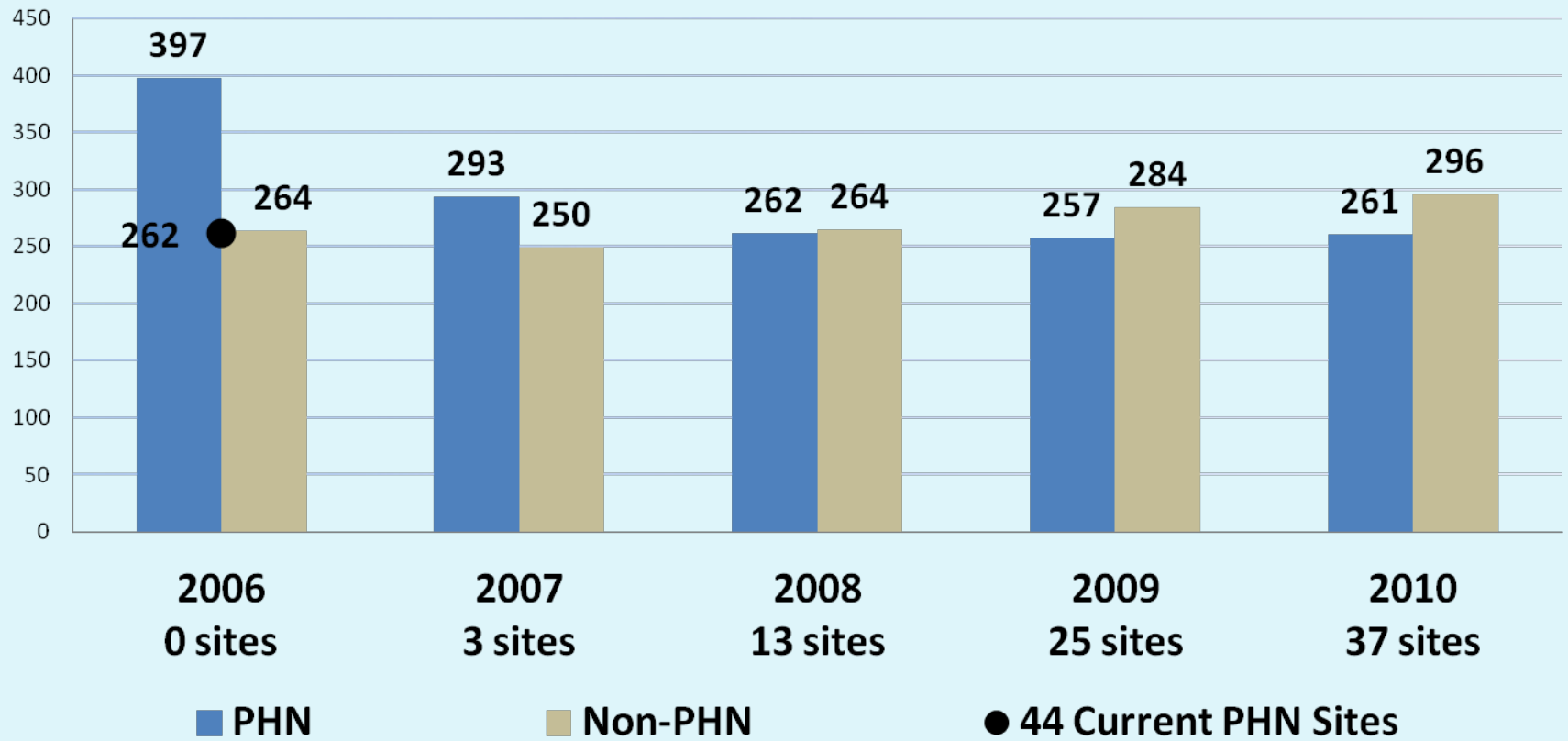
Medicare Readmissions

Risk Adjusted Readmissions/1000

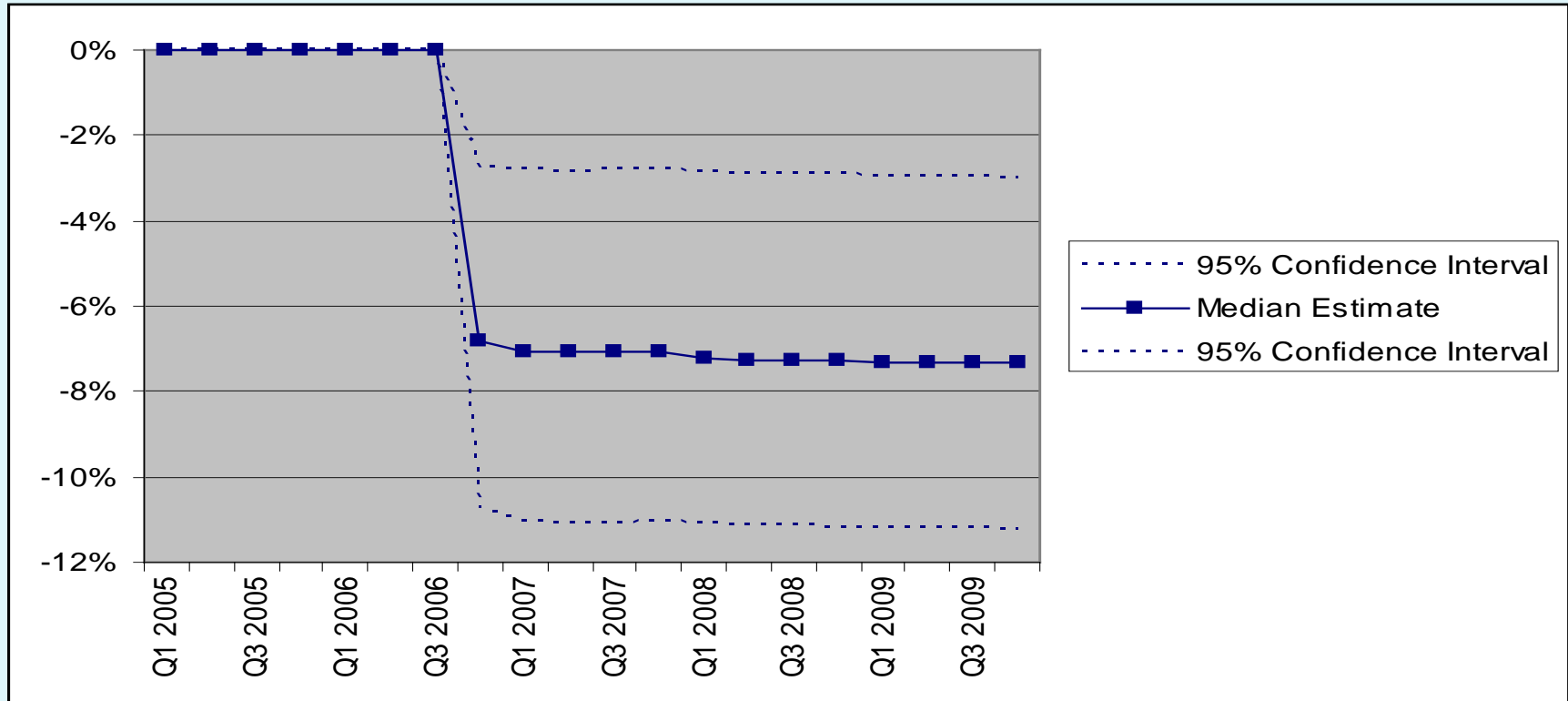


ER stays flat in PHN while un-managed increases

Risk Adjusted ER Visits/1000 - Medicare



Cumulative percent difference in spending attributable to PHN



Cumulative percent difference in spending (Pre-Rx Allowed PMPM \$) attributable to PHN in the first 21 PHN clinics for calendar years 2005-2009. Dotted lines represent 95% confidence interval. $P = < 0.003$

Clinical Results

Claims Data 2005-2009

	Odds Ratio	95% CI
Amputation	0.178	0.04-0.66
ESRD	0.688	0.51-0.91
MI	1.067	0.99-1.14
CVA	0.966	0.94-1.02

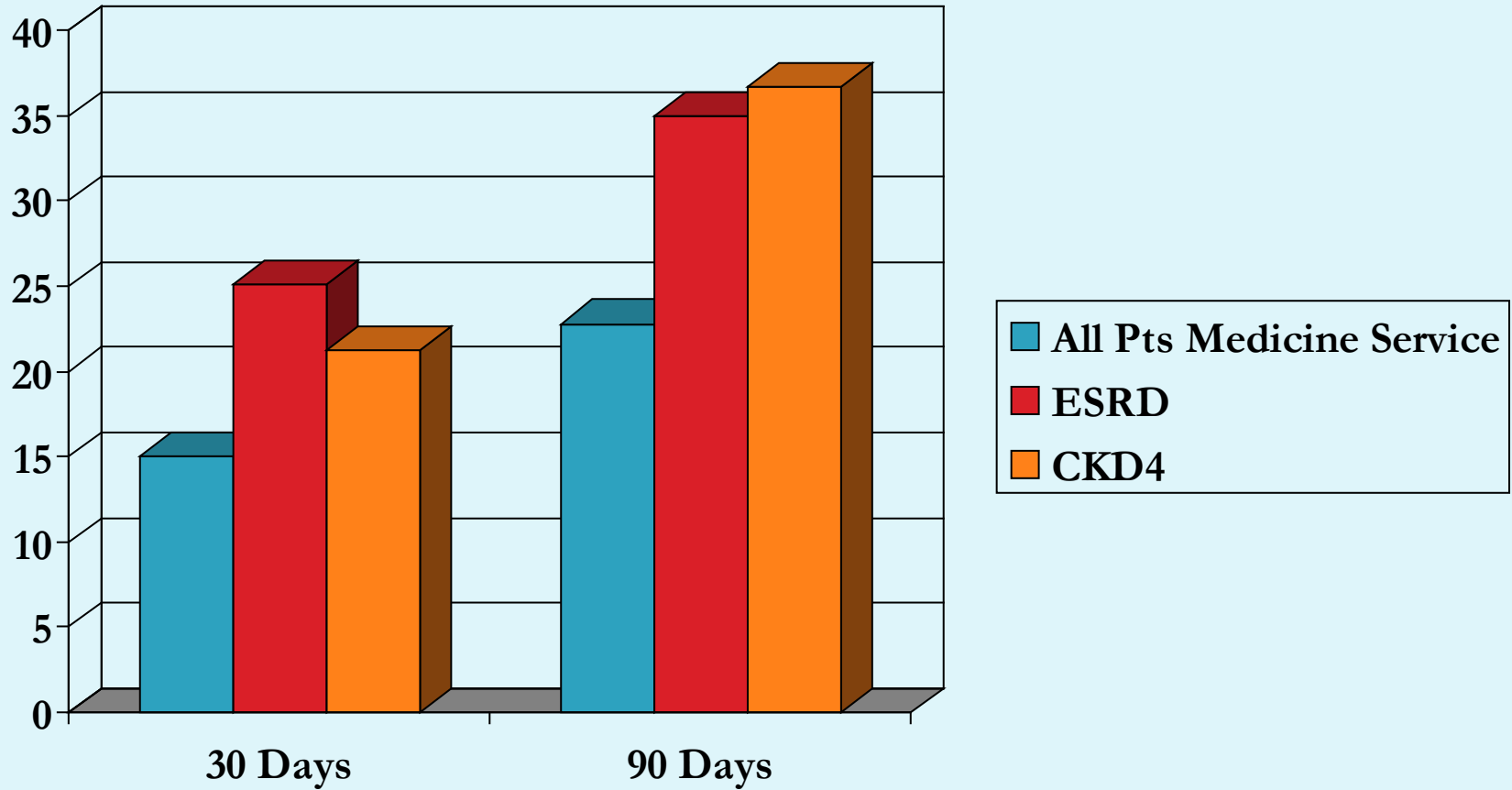
The ESRD Population and Transitions of Care



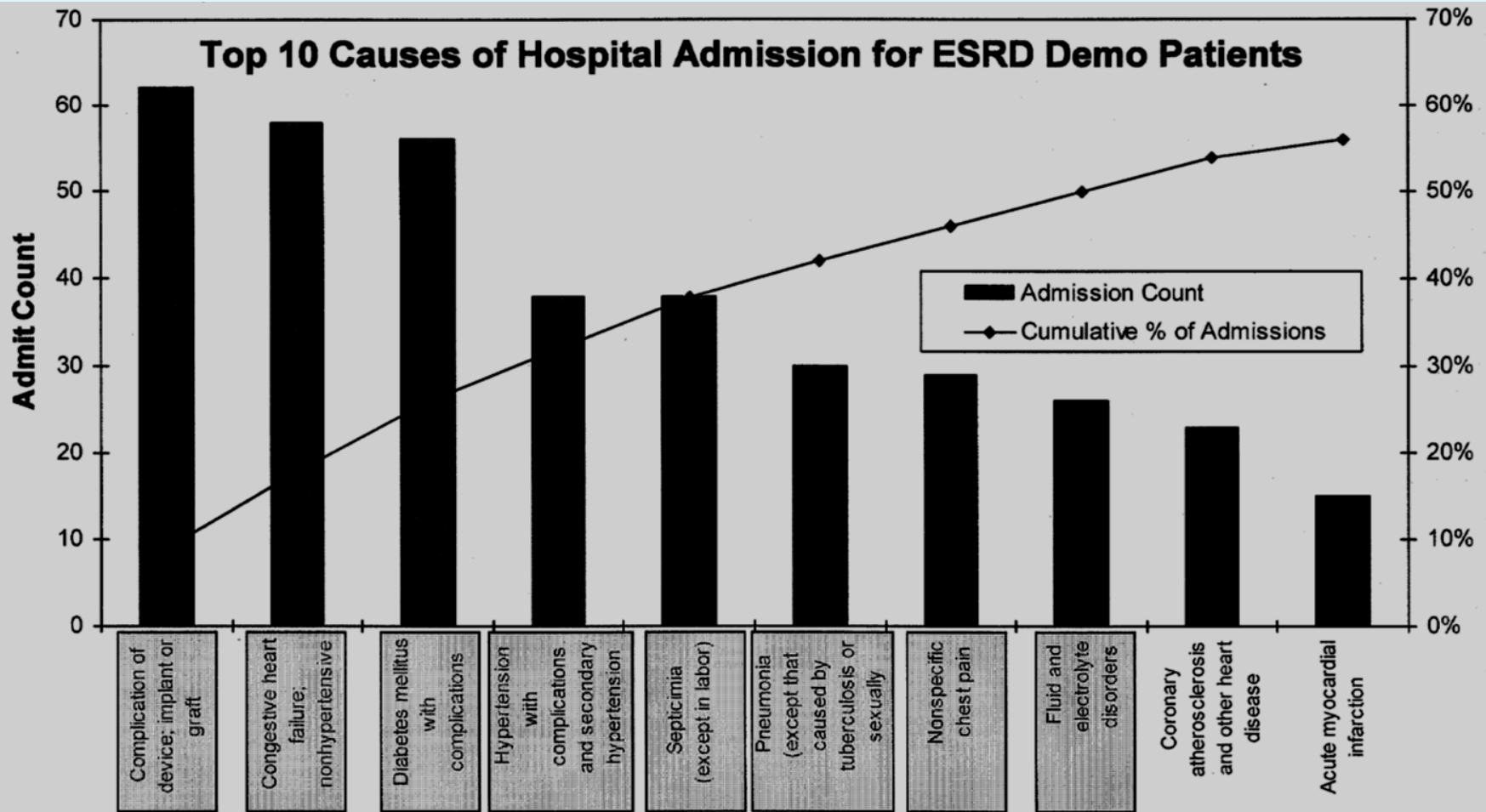
Why Transitions of Care is Needed

- ESRD patients are complex
 - ESRD patients at Geisinger
 - Average age 65.9 years
 - 57% male, 43% female
 - See 6.7 different classes of medical providers per year
 - Have 12.7 different prescriptions (not including those given at dialysis)

Readmission Rate – GMC 2010



Reasons for Admission



➔ ~ 60% of admissions are in “avoidable” categories

Reasons for Readmission – GMC

- ESRD – 30 days (69 patients; 100 readmissions; 13% of all readmissions)
 - 1. CHF (13%), 2. Sepsis (12%), 3. Access (10%), 4. Arrhythmia (7%), 5. Diabetes (7%) – 49%
- ESRD – 90 days (94 patients; 166 readmissions; 12% of all readmissions)
 - 1. Access (14%), 2. Sepsis (12%), 3. CHF (12%), 4. Electrolyte (8%), 5. General Symptoms (8%) – 54%

Transition Opportunities

- Vascular access
 - Patients with CVC for access have approximately a 3 fold increase in annual mortality
 - Patients with CVC for access have an approximately 10 fold increased risk of bacteremia over those with an AVF
 - 3X Increased risk in first year of HD

Transition Opportunities

- Vascular access
 - There is a significant decline in patients who will agree to an avf or graft if on HD for 2 weeks with a catheter and have not had a surgery evaluation for avf/graft
- Fluid overload
 - #1 cause of readmission for ESRD patients at GMC
 - #2 cause of readmission for ESRD patients in LDO-CMS Demonstration Project

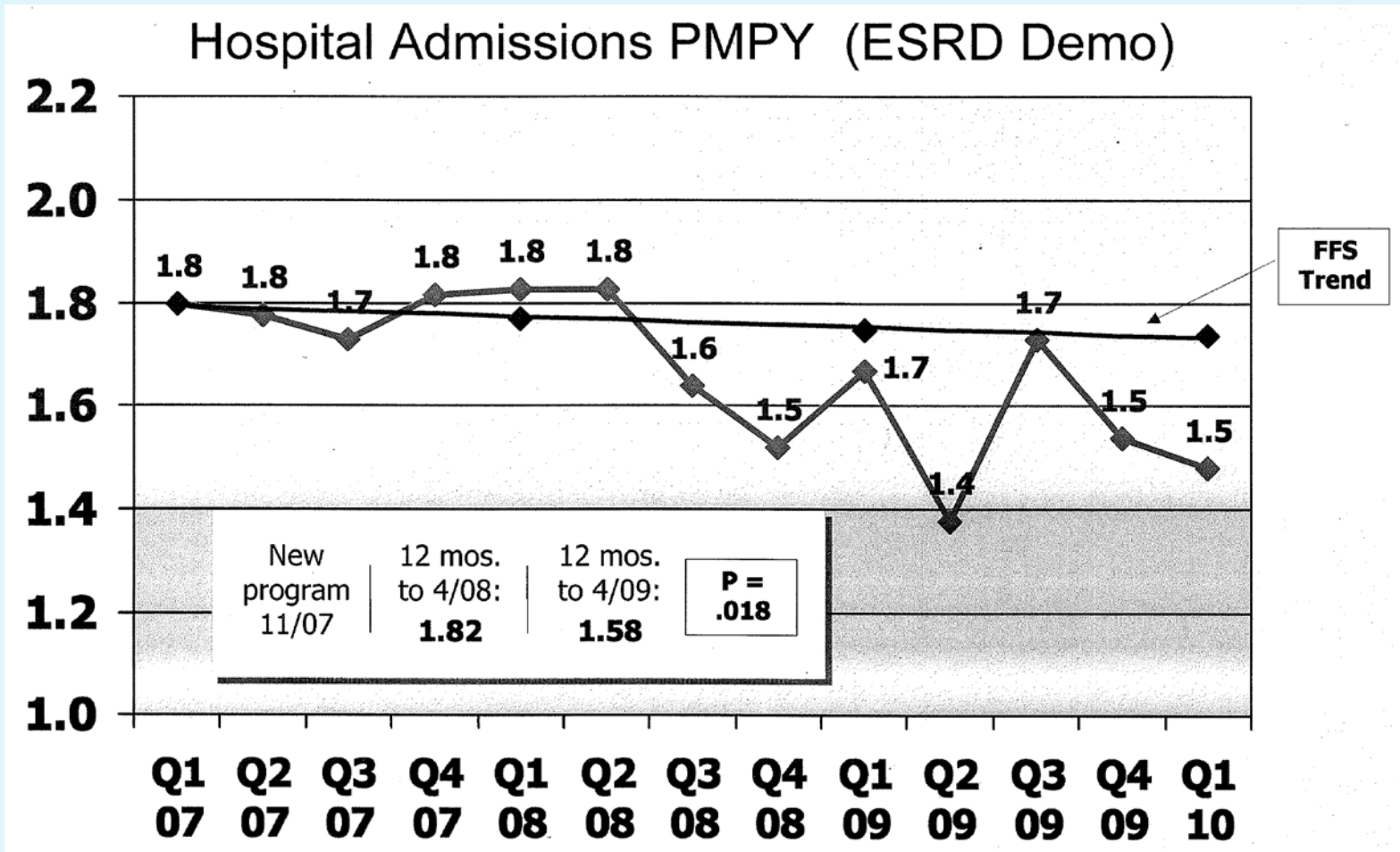
Transition Opportunities

- Medication-related problems
 - Transitions of care/communication
- Dietary-related problems
 - #4 cause of readmission for ESRD at 90 days at GMC
- End-of-Life Care
 - Advanced Care planning

ESRD/CKD Medical Home Documented Results

- LDO/CMS Demonstration Project
- Utilizing a Transition of Care Team
 - 60% reduction in catheters
 - 25% higher medication compliance
 - 35% fewer access related admissions
 - 15% fewer re-admissions
 - 8% lower Non-dialysis costs

LDO/CMS Demonstration Project



Clinical Results

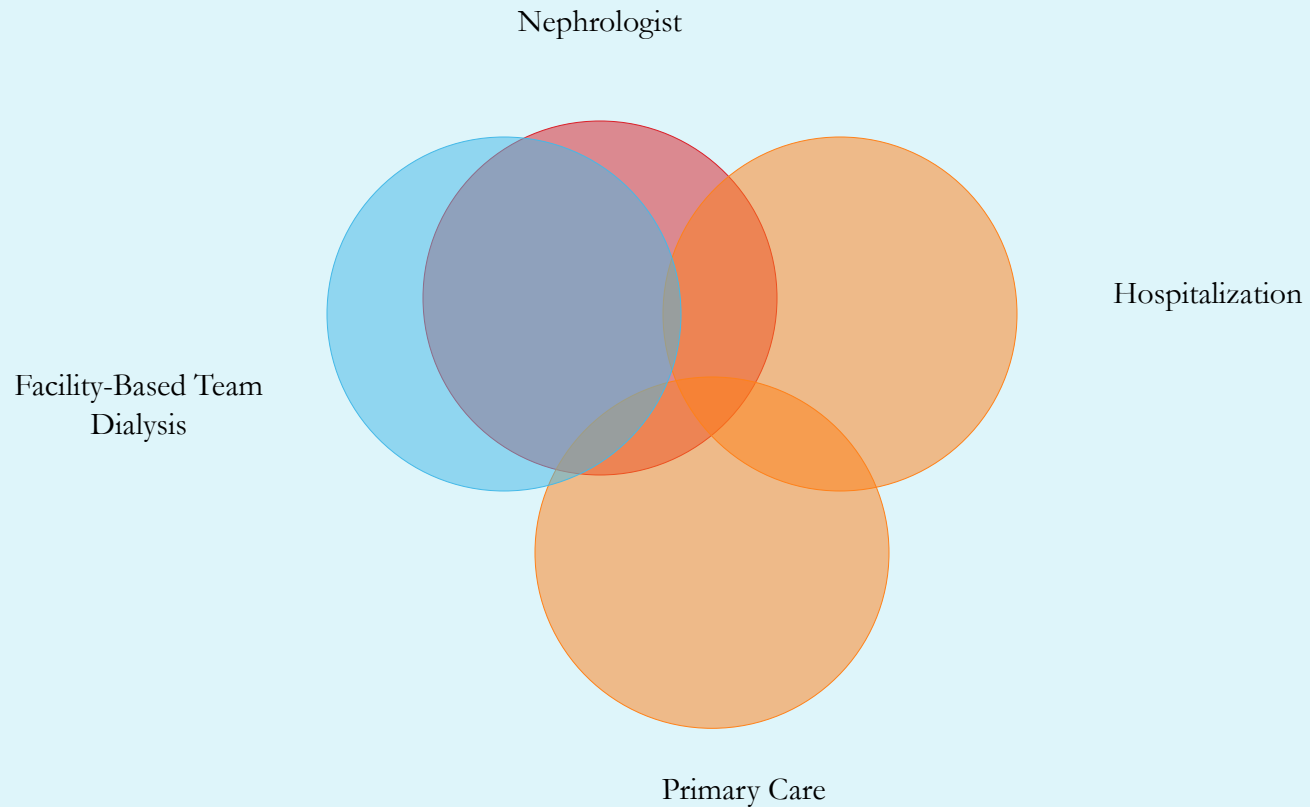
- ESRD Readmission Rates
- GMC Nephrology Group
 - CMI 2.0
 - 30 Day Readmission Rate 12.8%
 - 90 Day Readmission Rate 38.3%
- All Other Providers
 - CMI 2.01
 - 30 Day Readmission Rate 33.0%
 - 90 Day Readmission Rate 49.9%

Transitions of Care

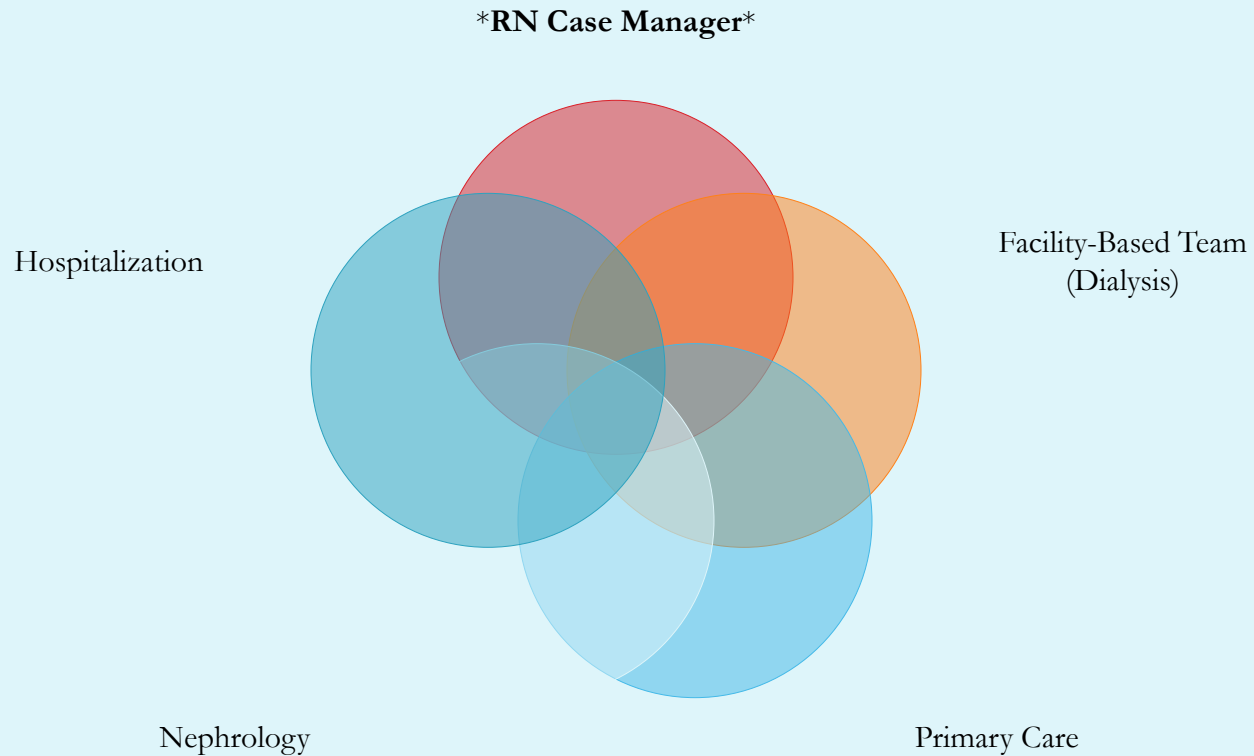
Opportunities for the Dialysis Care-givers



Current Model of Care



Coordination of Care – New Model



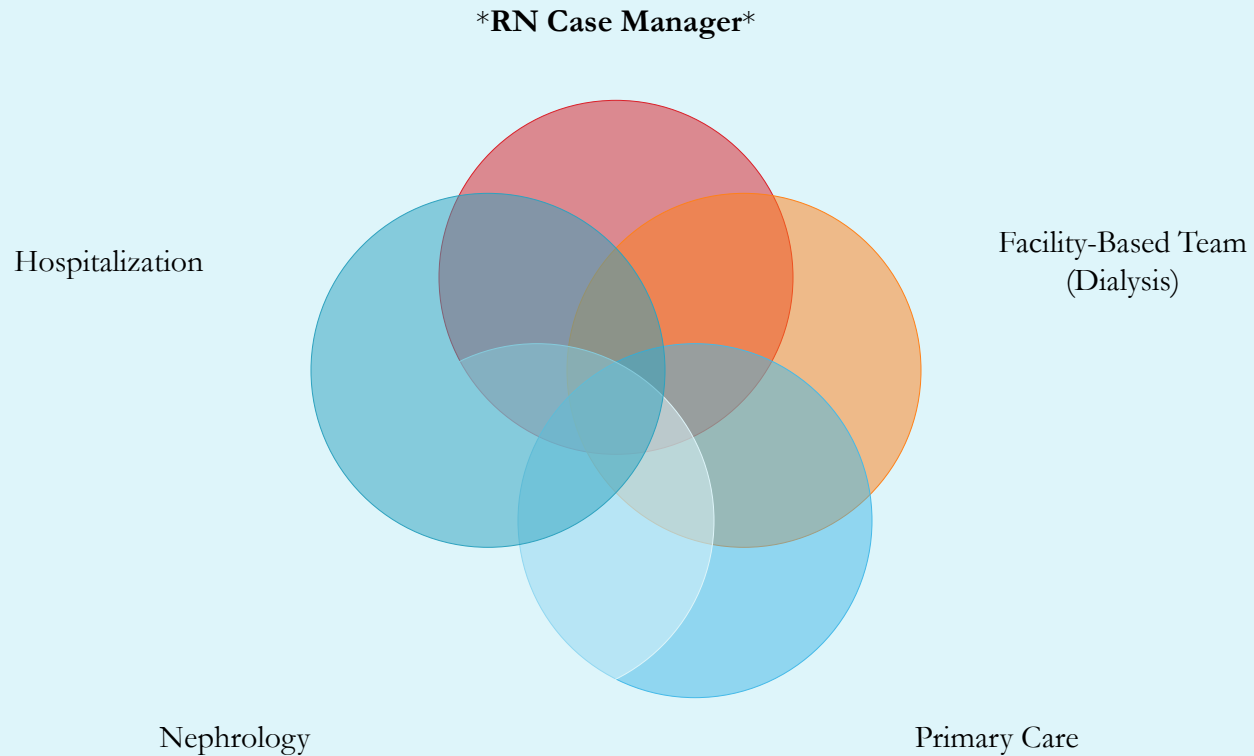
Programmatic Design

- A Case Manager(s) would be employed to act as the focal point for transitions of care for ESRD patients.
- The Case Manager will be trained by and provided clinical supervision by the Nephrology practice.
- Case management services will be provided to optimize medical management while patient hospitalized and to ensure proper care coordination with all appropriate arenas after discharge.

Objectives of Program

- To reduce unnecessary re-admissions and emergency department visits driven by unmanaged and poorly coordinated transitions for patients with ESRD
- Enhance patient and provider satisfaction
- Enhance communication surrounding ESRD patients across the care continuum
- Reduce medical costs by decreasing hospital and emergency department utilization

Coordination of Care – New Model



ESRD Case Manager Pilot

- 50 patients enrolled
- Baseline data – 1.02 admissions/pt/year
- Initial data of program (4 months) –
 - 0.61 admissions/pt/year – 41% improvement from baseline
 - No readmissions within 30 days
 - 1 readmission within 90 days

QIO-Network 4 Collaborative

- Care Transitions Project
 - Between hospitals, nursing homes, and dialysis units
 - Focused on 4 counties in Western Pennsylvania
 - Two hospitals in project
 - Ten dialysis providers in area (2 in project)
 - 430 dialysis patients
 - 51% older than age 65
 - 8.8% older than age 85

QIO-Network 4 Collaborative

- Care Transitions Project
 - To reduce medication and treatment errors
 - To avoid inaccurate or missing test results
 - To avoid inaccurate or missing physician orders
 - To reduce 30-day readmission rates
- Success dependent on:
 - Breaking down long-established “silos” of care
 - Deepening existing relationships and developing new community partners

QIO-Network 4 Collaborative

- Workgroup identified three major quality care management barriers
 - Cross-setting transition workflow gaps between providers
 - Providers were not completely aware of the cross-setting needs of their patients.
 - Communication disconnects
 - Providers were not aware of the patient specific information required for safe, dignified, efficient care.
 - Lack of standardized, evidence-based documentation across providers

QIO-Network 4 Collaborative

- Cross-setting transition workflow gaps
 - “Hospital staff...had assumed they knew what information was needed by the next care provider to transition care for the ESRD patient. However they learned that their assumptions were short-sighted...”

QIO-Network 4 Collaborative

- Transition Communication Forms were developed specific to the ESRD patient
 - For communication from hospital (or nursing home) to dialysis unit
 - For communication from dialysis unit to hospital (or nursing home)
- Eight week pilot was conducted

QIO-Network 4 Collaborative

- Results of the Pilot
 - Staff adjusted very quickly to the use of the Transition Communication Forms.
 - Staff found the Transition Communication Forms very valuable in the enhancement of care of the ESRD patient.
 - Staff wanted the Transition Communication Forms to be a permanent component of their clinical practice.
- Network 4 Web Site Link –
 - <http://www.esrdnetwork4.org/facres>

Dialysis Unit to Hospital Transfer Summary

PATIENT NAME / ID: _____
DOB: _____
PRIMARY RENAL DX: _____
HEPATITIS B: _____
 Antigen: _____ Antibody: _____
 Date: _____

COMPETENT TO SIGN CONSENTS:
 YES NO

CODE STATUS:
 Full DNR Other Instructions: _____

CHRONIC DIALYSIS UNIT NAME: _____
DIALYSIS UNIT PHONE: _____ **NEPHROLOGIST:** _____

REASON FOR ADMISSION: _____

ALLERGIES:

<p>Current Vascular Access</p> <p>PRIMARY SECONDARY (if any)</p> <p><input type="checkbox"/> CATH <input type="checkbox"/> CATH</p> <p><input type="checkbox"/> AVF <input type="checkbox"/> AVF</p> <p><input type="checkbox"/> AVG <input type="checkbox"/> AVG</p> <p><input type="checkbox"/> Other <input type="checkbox"/> Other</p>	<p>Access Location: _____</p> <p>Access Surgeon: _____</p> <p>Needle Size: _____</p> <p>Average bleeding time: _____</p> <p>Buttonhole cannulation: <input type="checkbox"/> NO <input type="checkbox"/> YES, Details: _____</p>	<p>Vascular Access Infection (within last 30 days): <input type="checkbox"/> NO <input type="checkbox"/> YES</p> <p>Positive Blood cultures: <input type="checkbox"/> NO <input type="checkbox"/> YES</p> <p>If Yes- name antibiotic(s) given: _____</p> <p>Organism type: _____</p>
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<p>Dialysis Prescription</p> <p>TX per week: _____ Duration: _____</p> <p>Schedule: _____</p> <p>Dialysate - Na: _____ K: _____ Ca: _____</p> <p>Bicarb setting: _____</p> <p>DFR rate: _____ BFR Rate: _____</p> <p>Dry Weight: _____</p>	<p>Heparin: Load: _____</p> <p>Hourly: Mid Tx bolus: _____</p> <p>Dialyzer: _____</p>	<p>Treatment tolerance: <input type="checkbox"/> Well <input type="checkbox"/> Fair <input type="checkbox"/> Poor</p> <p>Details: _____</p>
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Dietary Order

Na: _____ K: _____ Phos: _____ Fluid restriction: _____

Protein: _____ Calories: _____

<p>Anemia Management</p> <p>ESA therapy: <input type="checkbox"/> None</p> <p><input type="checkbox"/> Epogen® <input type="checkbox"/> Aranesp® <input type="checkbox"/> Procrit®</p> <p>Dosage: _____</p> <p>Route: _____</p> <p>Frequency: _____</p>	<p>IV IRON Therapy:</p> <p><input type="checkbox"/> Venofer® <input type="checkbox"/> Ferricite®</p> <p><input type="checkbox"/> Feraheme® <input type="checkbox"/> Infed®</p> <p><input type="checkbox"/> Dexferum® <input type="checkbox"/> Other _____</p> <p>Last Dose/Date Received: _____</p>	<p>Any RBC transfusions: <input type="checkbox"/> NO <input type="checkbox"/> YES date(s) _____</p> <p>HGB prior to transfusion(s) gm/dL _____</p> <p>Most recent: Hgb: _____ Hct: _____ Date: _____</p>
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Routine Dialysis Medications

Attachments

Last 3 HD flow-sheets Medication list Care Plan Other (list below)

FORM COMPLETED BY: _____

Signature _____ Date _____

Hospital to Dialysis Unit Transfer Summary

PATIENT NAME / ID: _____

HOSPITAL: _____ **Hospital Phone:** _____

ADMISSION DATE: _____ **DISCHARGE DATE:** _____

DISCHARGING PHYSICIAN: _____

INPATIENT ATTENDING NEPHROLOGIST(S): _____

DOB: _____ **COMPETENT TO SIGN CONSENTS:**
 YES NO

PRIMARY RENAL DX: _____ **CODE STATUS:**
 Full DNR Other Instructions: _____

HEPATITIS B:
Antigen: _____ **Antibody:** _____
Date: _____

ALLERGIES: _____

<p>Current Vascular Access</p> <p><input type="checkbox"/> Tunneled catheter <input type="checkbox"/> AVF <input type="checkbox"/> AVG <input type="checkbox"/> Other _____</p>	<p>Any changes this admission:</p> <p><input type="checkbox"/> Clotting <input type="checkbox"/> Declotting <input type="checkbox"/> Revision <input type="checkbox"/> New Placement (describe) _____</p>	<p>Vascular Access Infection: <input type="checkbox"/> NO <input type="checkbox"/> YES</p> <p>Positive Blood cultures: <input type="checkbox"/> NO <input type="checkbox"/> YES</p> <p>If Yes- name antibiotic(s) given: _____</p> <p>Organism type: _____</p>
<p>Anemia Management</p> <p>Administration of ESA's during the Admission: <input type="checkbox"/> None <input type="checkbox"/> Epogen® <input type="checkbox"/> Aranesp® <input type="checkbox"/> Procrit® Last Dose/Date Received: _____</p>	<p>IV IRON Therapy:</p> <p><input type="checkbox"/> Venofer® <input type="checkbox"/> Ferrlecit® <input type="checkbox"/> Feraheme® <input type="checkbox"/> Infed® <input type="checkbox"/> Dex ferrum® <input type="checkbox"/> Other _____ Last Dose/Date Received: _____</p>	<p>Any RBC transfusions: <input type="checkbox"/> NO <input type="checkbox"/> YES date(s) _____ HGB prior to transfusion(s) _____ gm/dL Most recent: Hgb: _____ Hct: _____ Date: _____</p>
<p>Miscellaneous</p> <p>Date of last HD prior to discharge: _____ Changes to EDW: _____ Treated for other infections: (list) _____</p>		<p>Medication changes: _____ _____ _____ Other: _____</p>
<p>Discharge Dialysis Prescription/Orders</p> <p>TX per week: _____ Duration: _____ Schedule: _____ Dialysate - Na: _____ K: _____ Ca: _____ Bicarb setting: _____ DFR rate: _____ BFR Rate: _____ Dry Weight: _____</p>	<p>Heparin: _____ Load: _____ Hourly: _____ Mid Tx bolus: _____ Dialyzer: _____</p>	<p>Treatment tolerance: <input type="checkbox"/> Well <input type="checkbox"/> Fair <input type="checkbox"/> Poor</p> <p>Details: _____</p>
<p>Discharge Instructions</p> <p><input type="checkbox"/> Telephone report to the Chronic HD unit <input type="checkbox"/> Report any changes in access placement or function <input type="checkbox"/> Verify that transportation arrangements have been made through Social Service</p>		<p><input type="checkbox"/> Fax Medical Records: <input type="checkbox"/> Last three HD treatment sheets <input type="checkbox"/> Medication list <input type="checkbox"/> Recent lab work -(Chemistries, CBC, Cultures) <input type="checkbox"/> H&P, Nephrology consult, Radiology/Scan reports, Discharge Notes</p>

FORM COMPLETED BY: _____

Signature _____ Date _____

QIO-Network 4 Collaborative

- Observations of Pilot
 - Cross-setting collaboration is not always easy – but it is possible and extremely important for our ESRD population.
 - Cross-setting collaboration takes shared vision, time, flexibility and commitment.
 - It is important that all participants have a voice in the development of cross-setting communication tools.

Summary

- The ESRD population is extremely complicated and in need for improved Transitions of Care.
- Successful Transitions of Care Programs have been performed in the ESRD population.
- Opportunities exist for all of us, as dialysis care-givers, to assist in improved Transitions of Care.

Acknowledgements

- Suzanne M. Kirschbaum, RN, CNN – ESRD Network 4
- Judy A. Stevenson, MSN, CPHQ – ESRD Network 4
- Quality Insights of Pennsylvania
- Network 4 Web Site Link –
 - <http://www.esrdnetwork4.org/facres>

Thank You



Questions?

