

# Pre-dialysis care: Access to a dietitian and nephrologist; data from the Medical Evidence form

Craig Solid, MS, Allan J. Collins, MD FACP

United States Renal Data System, Minneapolis Medical Research Foundation

## Introduction

- As of 2005, the Medical Evidence form (CMS-2728) for those beginning renal replacement therapy (RRT) includes information on pre-ESRD care. Specifically, it asks whether the patient had been under the care of a nephrologist or a kidney dietitian prior to beginning RRT.
- The Medical Evidence form collects information on the patient's current medical insurance coverage as well, such as:
  - are they currently covered by Medicare or Medicaid,
  - are they are enrolled in an Employer Group Health Plan (EGHP) or,
  - do they have any insurance at all.
- The proper care prior to renal failure is thought to improve the prognosis and outcomes of patients once they begin RRT but few studies have attempted to quantify how many patients are receiving this care prior to ESRD.

## Methods

- We used the USRDS database to identify 139,452 unique patients since 2005 who had the most recent version of the Medical Evidence form and from it collected demographic and comorbidity information (including primary cause of renal failure).
- Patients are allowed to identify all sources of medical coverage that apply, therefore medical coverage categories are not necessarily mutually exclusive, thus patients indicating both Medicare and Medicaid coverage were considered to be dually-enrolled.
- Only forms with complete pre-ESRD care information (i.e., either "Yes" or "No") were analyzed.
- Separate logistic regression models (adjusted for demographics and comorbidity), were used for each type of medical coverage and the reference group for any type of medical coverage in each particular model was "everyone else".

## Results

- A total of 114,109 patients (82%) had complete kidney dietitian information on pre-ESRD care, and 124,518 (89%) had complete information on pre-ESRD nephrologist care. Of these, 13% had been under the care of a kidney dietitian, and two-thirds had seen a nephrologist prior to the start of RRT.
- Nearly one-half had Medicare coverage prior to RRT, 26% had received Medicaid benefits, and 13% were identified as dually-enrolled; a total of 27% were enrolled in an EGHP prior to RRT.
- Unadjusted associations with pre-ESRD care were observed within race and age groups, and in patients with cystic kidney disease.
- Medicaid patients were less likely to receive either type of pre-ESRD care, even after adjusting for other factors, while dually-enrolled patients were less likely to see a dietitian.
- Medicare patients were more likely to have seen a nephrologist, and patients enrolled in an EGHP were much more likely to receive both types of pre-ESRD care.

Table 1.

Demographic information from the Medical Evidence Form	Age	Comorbidity	
	< 45	ASHD	22.1%
	45-64	CHF	33.0%
	65-74	CVAT/IA	9.9%
	75+	PVD	14.7%
(N = 139,452)			
	Race	Primary Cause of Renal Failure	
	White	DM	43.2%
	Black	HTN	26.1%
	Other/Unk	GM	8.8%
	Gender	Cystic Kid.	2.0%
	Male		
	Female		

Figure 1.

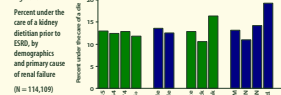


Figure 3.

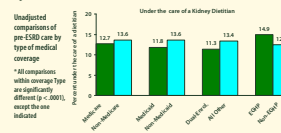


Table 3.

Adjusted odds ratios from Table 3 (each condition separately, the reference group in each case is "everyone else")	Medicare/Medicaid	Medicaid	Medicare	Dually Enrolled	EGHP	No Insurance
Kidney Dietitian	0.98 (0.94, 1.03)	0.3890	0.82 (0.75, 0.88)	< .0001	0.83 (0.77, 0.87)	< .0001
Nephrologist	1.38 (1.36, 1.42)	< .0001	0.85 (0.82, 0.87)	< .0001	1.81 (1.76, 1.85)	< .0001

Table 2.

Type of Medical Coverage (N = 139,452)	Medicare	Medicaid	Dually Enrolled*	EGHP
Medical coverage information and pre-ESRD care from the Medical Evidence form	Yes	54.3%	25.9%	13.4%
	No	45.7%	74.1%	27.1%
			86.6%	72.9%
* Those with both Medicare and Medicaid coverage				
Pre-ESRD Care	Kidney Dietitian (N = 114,109)			
	Yes	13.1%		
	No	86.9%		
	Nephrologist (N = 124,518)			
	Yes	66.6%		
	No	33.4%		

Figure 2.

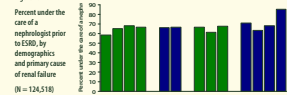
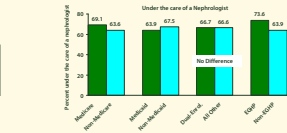


Figure 4.



## Conclusions

- These data indicate that patients receiving Medicaid benefits prior to the start of renal replacement therapy are less likely to receive important pre-ESRD care, even after adjusting for confounders.
- Patients enrolled in an EGHP prior to ESRD were the most likely to receive care from a kidney dietitian or a nephrologist.
- Overall, only about 1 out of every 8 patients is under the care of a kidney dietitian; a full one-third are not under the care of a nephrologist prior to renal replacement therapy.