Trends in Incident ESRD Counts: Regional Variation in Initiating Dialysis in Freestanding Facilities

The Peer Kidney Care Initiative

A collaboration of the Chronic Disease Research Group (Minneapolis, Minnesota) and the Chief Medical Officers of 13 US Dialysis Providers

Introduction

- Overall rates of end-stage renal disease (ESRD) patients initiating dialysis have stabilized, and growth in counts of incident dialysis patients has slowed since the beginning of the present decade.
- We assessed trends in incident ESRD counts from 2004-2011, overall and by the 9 US census divisions, to determine geographic variation in number of dialysis initiates.

Methods

- Data were ascertained from the Centers for Medicare & Medicaid Services ESRD database.
- For annual incident cohorts, we identified patients whose first outpatient dialysis treatment was within 3 months of initiating maintenance dialysis in a freestanding (non-hospitalbased) facility.

Results

- Yearly counts increased through 2010, with an average annual percent increase of 2.7% from 2004 to 2011.
- Between 2009 and 2011, the average percent increase was relatively unchanged (-0.1%).
- However, there were regional differences. The New England census division experienced the largest proportional decrease in incident patients between 2009 and 2011, while the contiguous Middle Atlantic division averaged the highest increase during the same period.
- Trends in rates were similar to trends in counts, with the exception of the South Atlantic region, where counts increased while rates were relatively flat.

Average yearly percent change in incident counts









Regions 1

2004 2005 2006 2007 2008 2009 2010 201

------ Incident Count

---- Incident Rate

New England

Middle Atlantic





Incident counts by region, state

SD

NE

KS









413 418 -0.6 1



2.312 2.178 2.111

7.434 7.801 8.324



Incident counts and rates by region





2004 2005 2006 2007 2008 2009 2010 201



5	13,005	13,130	13,450	13,145	2.0	/
6	1,053	1,012	1,030	919	1.8	S
8	2,184	2,213	2,238	2,188	-0.1	5
4	1,123	1,188	1,183	1,068	1.9	~
,	8,645	8,717	8,999	8,970	2.7	~
in S In	iating o outh Ce nost 3 pe	n dialysi entral div ercent ar	s in frees ision. mual inc	itanding reases in	facilitie	s have

5	5,030	5,300	5,604	5.333	3-3	/	
9	2,000	2,080	2,270	2,163	2.8	/	
8	815	892	861	814	1.3	~	
5	326	355	376	325	9.8	1	
1	73	71	67	109	3.1	~	
0	871	891	995	913	4-3	~	
5	591	614	640	579	3-9	1	
7	316	351	353	374	2.4	~	
0	38	46	42	56	0.5	2	
itiating on dialysis in freestanding facilities have Mountain division, the highest rate among all							

9	14,676	15,702	16,091	15,969	3.0	/	
0	217	115	137	136	5.0	\sim	
0	11,942	12,585	13,043	13,017	2.9	/	
8	535	646	565	564	8.9	\sim	
1	812	940	969	848	2.8	~	٦
3	1,270	1,416	1,377	1,404	2.2	~	•
RD patients initiating on dialysis in freestanding te South Atlantic. California, where annual counts have increased							
all sample share and subset a branches of distants							



Conclusions

- Overall trends in dialysis incidence reveal substantial geographic variation that has not been explained, suggesting that an assessment based on overall US counts may mask important regional differences.
- Whether these trends will continue in the face of increasing diabetes rates, an aging population, and shifts in social demographics is uncertain: this will require more detailed analysis.

peerkidney.org