ESRD Payment policy changes:
The New “Bundled” Dialysis Prospective Payment System (PPS) in the United States

Allan J. Collins, MD, FACP
Professor of Medicine
University of Minnesota

Director, United States Renal Data System Coordinating Center
Disclosures

- Institutional research support: NIH, CDC, HRSA, NKF, Pharma: Johnson and Johnson, Merck, Takeda, Affymax, NxStage, Amgen, Abbott, Medtronic
- Advisory Boards: WHO NCD research panel, WHO field protocol for NCD Dx and Rx, KDIGO, Kidney Health Australia, CARI, IKEA-J, Kidney and Urologic Institute Karachi
- Epidemiology consulting: Takeda, NxStage, Amgen, Merck, Affymax, GSK, Reata, Abbott
Health Care policy for ESRD in a time of economic challenges

- The prevalent US dialysis population was 400,000 in 2009 growing at 3-4% per year

- The increasing dialysis costs led Congress to mandate payment reform with updating of the Composite Rate Bundled payment first introduced in 1983.
Expenditures Per Person Per Year for dialysis services

- Other Injectables
- IV Iron
- Vitamin D
- Other Dialysis
- Peritoneal Dialysis
- Hemodialysis
- ESA
The New CMS “Bundled” payment system - key elements (January 1, 2011)

- The new CMS payment system pays **one amount of money per person per treatment** for all dialysis, EPO, Vitamin D, IV iron, all ESRD lab tests and oral medications with IV equivalents.

- The new Bundle builds on the same principles that led to the original “Composite Rate” dialysis payment introduced in 1983.
Dialysis Bundle payment: old vs new

• **Old bundled system**
  - Dialysis procedure labor & supplies (HD/PD paid the same)
  - Monthly routine labs: K, Ca, PO4, Creat, CO2, AST, BUN, KT/V, CBC, INR

• **Outside Bundle**
  - Injections: ESAs, IV Fe, IV Vitamin D, Antibiotics, Carnitine
  - All other lab tests for CVD, DM, risk factor monitoring, cultures, PRAs for Tx

• **New Bundle with adjusters**
  - Same as old plus
  - All dialysis labs done by nephrologists
  - All injections included (ESAs, Vit D, IV Fe, Carnitine, Antibiotics, cultures)
  - PO medications: Fe, Vitamin D
    - Sensipar and phosphate binders by 2014
Medicare Bundled Dialysis Prospective Payment System: components (for 2011)

- Total dollars on all dialysis services divided by the total number of Medicare HD (PD)-equivalent sessions in CY2007 and adjust for CY2011 prices = $251.60 per treatment
- Reduce by 5.94% to account for average case-mix adjustment = $236.68 per treatment
- Reduce by 1% to create outlier payment pool = $234.31 per treatment
- Reduce by 2% per MIPPA for budget neutrality = $229.63 per treatment
Adjusters to Base payment: $229.63/Trt

- Low volume adjustment: **1.202**
  - <4000 treatments x 3 years

- Onset of dialysis ≤4 months: **1.51**

- **Acute**: current month + 3 months
  - Pericarditis: **1.114**
  - Bacterial pneumonia: **1.135**
  - GI bleed with hemorrhage: **1.183**

- **Chronic† added on the current month until death or Tx**
  - Hereditary hemolytic or sickle cell anemias: **1.072**
  - Myelodysplastic syndrome: **1.099**
  - Monoclonal gammopathy: **1.024**
Cost structures of PD and HD: Implications for a bundled payment system (USRDS 2011 ADR, Matched HD and PD Cohorts)

On a per person per year basis PD is about $6-7000 less costly for outpatient service in a matched population.
- ESA dosing is 40% less costly.
- IV iron dosing is 80% less.
- IV Vitamin D is 98% lower with few PD patients receiving this therapy.
USRDS Special Study: Assessing the New CMS Dialysis Bundled Payment System

- Special Study from early data available within a current year after the first nine calendar months: 2011 CMS quarterly SAFs (QSAFs)

- Finder file generated from the quarterly SIMS/Crown Data submitted by networks/dialysis providers (4\textsuperscript{th} quarter)

- The finder file is cumulative throughout the year capturing prevalent patients as well as incident patients from submitted ME Form 2728s (delays in submitted ME Forms need to be considered).

- The data starts with a claim level definition to determine dialysis patients
Switching to the New Bundled payment system - data thru June 2011

- 96% of providers that use EPO switched to the bundled payment system
- 76% of providers that use DPO switched to the bundled payment system
- EPO doses decreased 19.2% in the first 9 months of 2011 vs same period in 2009
- Mean Hb fell 3.8% from 2009 (11.39 gm/dl) to first nine months of 2011 (10.96 gm/dl)
- 3% increase in Patients using IV iron
Switching to the New Bundled payment system - 2

HD treatment billing increased 7.7%, however, PD treatments increased 16.8% between 2009 and 2011.

Therefore, the percent growth in PD was double compared to HD under the new Bundled payment system.
Persons with at least 1 dialysis claim in the month January – September (undercounts incident patients)

*2011 QSAFs, finder file 4th quarter 2011
% of Patients by the Mean Number of EPO Administrations per Month
January to September 2009-2011

From 2009 to 2011
- 30% drop in 13 doses per month
- 23% drop in 12 doses per month
Hb Distribution before and after the New Bundled Dialysis Payment System

- **HB 12+**
  - Jan 09: 11.4%
  - May 09: 32.5%
  - Sep 09: 29.2%
  - Jan 10: 18.4%
  - May 10: 11.5%
  - Sep 10: 72.0%
  - Jan 11: 67.6%
  - May 11: 72.0%
  - Sep 11: 11.5%

- **HB 10-12**
  - Jan 09: 56.1%
  - May 09: 58.8%
  - Sep 09: 58.8%
  - Jan 10: 67.6%
  - May 10: 72.0%
  - Sep 10: 72.0%
  - Jan 11: 72.0%
  - May 11: 72.0%
  - Sep 11: 72.0%

- **HB <10**
  - Jan 09: 11.4%
  - May 09: 12.0%
  - Sep 09: 12.0%
  - Jan 10: 14.0%
  - May 10: 16.5%
  - Sep 10: 16.5%
  - Jan 11: 16.5%
  - May 11: 16.5%
  - Sep 11: 16.5%
3.4% increase in the patients using IV iron in 2011 vs 2009

88.9% of Pts had 1+ iron doses
89.2% of Pts had 1+ iron doses
92.0% of Pts had 1+ iron doses

Distribution of Dose of IV Iron
January to September

Percent of patients treated with iron

Iron Dose (mg/9 month)
Monthly Admission Rate*
January - September
(*Hospitalization data for 2011 may be underreported based on early data assessment)
Monthly Transfusion Rate
January - September
Major changes under the new dialysis Bundled Prospective Payment System

- Providers adopted the new Bundled payment system (93+%) 
- The use of peritoneal dialysis has increased
- ESA treatment has changed with reduced dosing and greater held doses in 2011 vs 2009
- Hb levels have fallen which is a continuation of changes noted under the new FDA labeling for ESA treatment over several years
- IV iron usage has increased
Assessing the New CMS Dialysis Bundled Payment System: Data Considerations

- Outpatient dialysis claims are paid on a timely basis based on rapid electronic submission from providers.
- Data within 2011 needs to be validated for the potential for incurred but not reported hospitalization events.
- Delayed hospitalization data may be vulnerable to slower claim submission for complex admissions.
- Transfusion data may be underreported based on most transfusion events occur during hospitalizations.
USRDS Special Study: Assessing the New CMS Bundled Dialysis Payment System

USRDS will be receiving quarterly updates (QSAFs) for 2012 to assess ongoing changes after implementation of the new Bundled Payment System.

USRDS ASN presentation will focus on the transitions in care from 2009-2011.

The USRDS 2012 ADR will have data on the Bundle as well as Medicare Part D trends.