Individuals with end-stage renal disease (ESRD)—irreversible loss of kidney function—require either dialysis or kidney transplantation to survive. In 1972, the Social Security Act extended all Medicare Part A and Part B benefits to individuals with ESRD who are entitled to receive Social Security benefits. In 2013, there were about 376,000 fee-for-service (FFS) Medicare ESRD beneficiaries on dialysis, representing about 1 percent of all FFS Medicare beneficiaries.

Because of the scarcity of kidneys available for transplantation, most patients with ESRD (70 percent) receive maintenance dialysis. Medicare spending for outpatient dialysis and injectable drugs administered during dialysis was about $11.0 billion in 2013 and is a predominant share of revenues for dialysis facilities.

Beginning in 1983, Medicare paid dialysis facilities a predetermined rate intended to cover a specific bundle of services provided to patients in a given dialysis treatment. To improve provider efficiency, Medicare began in 2011 to phase in a modernized prospective payment system (PPS) for outpatient dialysis services. The Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) broadened the payment bundle to include dialysis drugs, laboratory tests, and other ESRD-related items and services that were previously separately billable. MIPPA also required CMS to implement a pay-for-performance program beginning in 2012. Beginning on January 1, 2014, all facilities were paid 100 percent under the modernized payment system. Table 1 summarizes key differences between the modernized and the prior payment systems.

**Defining the care that Medicare buys**

Medicare covers two methods of dialysis—hemodialysis and peritoneal dialysis. In hemodialysis, a patient's blood is cycled through a dialysis machine, which filters out body waste. Nearly 90 percent of all dialysis patients undergo hemodialysis in dialysis facilities. Peritoneal dialysis uses the lining of the peritoneal cavity to filter excess waste products, which are then drained from the abdomen. Patients undergo peritoneal dialysis five to seven times per week in their homes.

The unit of payment is a single dialysis treatment. Although different equipment, supplies, and labor are needed for hemodialysis and peritoneal dialysis, the payment system that began in 2011 does not differentiate payment based on dialysis method for adults. Medicare's payment rate is based on a regimen of three dialysis treatments per week.

Under the modernized payment method, facilities are paid a single case-mix-adjusted payment which includes composite rate services and ESRD-related drugs, laboratory services, and medical equipment and supplies. The ESRD drugs included under the broader payment bundle include: (1) Part B ESRD-related drugs (including erythropoietin, injectable iron, and vitamin D analogs), and their oral equivalents; and (2) Part D oral ESRD-related drugs with no injectable equivalent (oral-only drugs include calcimimetics and phosphate binders). Statutory provisions delayed the inclusion of oral-only ESRD-related drugs into the payment bundle until 2025.

**Setting the base rate**

The base payment under the broader bundle is intended to cover all operating and capital costs that efficient providers would incur in furnishing dialysis treatment episodes in dialysis facilities or in patients’ homes. For 2016, the base payment rate is proposed at $230.20 for freestanding facilities and for hospital-based facilities (Figure 1). The base rate reflects the following factors: (1) a wage
index budget-neutrality adjustment factor, (2) a budget-neutrality adjustment factor to account for the proposed refinements of the payment adjustment factors in 2016, and (3) a market basket increase in 2016.

**Patient-level adjustments**—For adults, CMS adjusts the base rate for case mix using the following measures:

- age (18–44, 45–59, 60–69, 70–79, ≥80 years),
- two body measurement variables—body surface area and body mass index,
- specific acute and chronic comorbidities, and
- onset of dialysis (for the first four months a patient receives dialysis).

For children under the age of 18 years, CMS adjusts the base rate by age and dialysis modality.

**Facility-level adjustments**—For 2016, CMS is proposing to include three facility-level adjustments to the base rate. First, CMS adjusts the base rate...
for differences in local input prices by using the Office of Management and Budget’s Core-Based Statistical Areas. The wage index values used under the ESRD PPS are the inpatient PPS wage index values calculated without regard to geographic reclassifications and utilize pre-floor hospital data that are unadjusted for occupational mix. The labor-related portion of the ESRD PPS payment rate is 50.7 percent for both freestanding and hospital-based facilities.

Second, CMS includes an adjustment to account for the costs that low-volume facilities incur. A low-volume facility is defined as one that furnishes fewer than 4,000 treatments in each of the three years before the payment year and that has not opened, closed or received a new provider number due to a change in ownership during the three-year period. In addition, CMS considers the proximity to other commonly-owned facilities within five miles of the facility in question.

Third, CMS includes an adjustment for all facilities located in rural areas.

**Outlier payments**—Under the modernized system, CMS pays facilities an outlier payment when a beneficiary’s payment per treatment for outlier services exceeds a threshold, which is the beneficiary’s predicted payment amount per treatment for the outlier services plus a fixed dollar loss amount. Outlier services include drugs, laboratory services, and other items that facilities separately billed under the old payment method. The fixed dollar loss amount for 2016 is proposed at $85.66 for adults. Medicare pays 80 percent of the facilities’ costs above the threshold.

**Self-dialysis training add-on payment**

The modernized payment method includes a dialysis training add-on payment of $50.16 per treatment that is adjusted based on the same hospital wage index used to adjust the base payment rate. CMS pays up to 15 training sessions for peritoneal dialysis and 25 sessions for hemodialysis.

**Payment updates**

Medicare payments to dialysis facilities are updated annually by the ESRD market basket, which measures the price increases of goods and services facilities buy to produce patient care, reduced by a productivity adjustment. The Protecting Access to Medicare Act of 2014 reduces the update by 1.25 percentage points in 2016 and 2017 and by 1 percentage point in 2018.

**Quality incentive payment program**

The modernized payment also includes a quality incentive payment program. Beginning in 2012, the bundled payment rate is reduced by up to 2 percent for facilities that do not achieve or make progress toward specified quality measures. Facility-level scores are publicly reported on-line and posted within dialysis facilities. For the 2016 payment year, the ESRD quality incentive program includes 11 measures:

- Three clinical measures that assess dialysis adequacy (i.e., the extent to which dialysis is removing enough wastes and fluid from the body);
- A clinical measure that assesses anemia management—the percentage of beneficiaries receiving erythropoietin stimulating agents with an average hemoglobin greater than 12.0 g/dL;
- Two clinical measures that assess hemodialysis vascular access—use of autogenous AV fistulas and intravenous catheters;
- A clinical measure, the National Healthcare Safety Network bloodstream infection measure, that assesses the number of hemodialysis outpatients with positive blood cultures per 100 hemodialysis patient-months;
- A clinical measure that assesses the proportion of patients with hypercalcemia, an indicator of the management of bone mineral metabolism and disease;
- A reporting measure that assesses facility administration of the in-center
A reporting measure that assesses whether facilities report the dosage of erythropoietin stimulating agents (as applicable) and hemoglobin/hematocrit of in-center and home hemodialysis beneficiaries.

- A reporting measure that assesses whether facilities attest to monitoring patients’ serum phosphorus levels (an indicator of bone mineral metabolism and disease); and

- A reporting measure that assesses whether facilities report the dosage of erythropoietin stimulating agents (as applicable) and hemoglobin/hematocrit of in-center and home hemodialysis beneficiaries.