

effective for discharges occurring on or after April 1, 2003 through September 30, 2003. As we discussed in the May 19, 2003 proposed rule (68 FR 27238), the capital rates effective for discharges occurring on or after April 1, 2003 through September 30, 2003, were used in determining the final FY 2004 capital rates. As a result of the changes to the factors used to establish the capital Federal rate that are explained in this Addendum, the FY 2004 capital standard Federal rate is \$415.47.

In the discussion that follows, we explain the factors that were used to determine the FY 2004 capital Federal rate. In particular, we explain why the FY 2004 capital Federal rate has increased 2.10 percent compared to the FY 2003 capital Federal rate (effective for discharges occurring on or after April 1, 2003 through September 30, 2003). We also estimate aggregate capital payments will increase by 1.4 percent during this same period. This increase is primarily due to the increase in the number of hospital admissions and the increase in case-mix. This increase in capital payments is slightly less than last year (5.81 percent), mostly due to the restoration of the 2.1 percent reduction to the capital Federal rate in FY 2003 (§ 412.308(b)(6)) and the projected decrease in outlier payments as a result of the IPPS outlier policy established in the June 9, 2003 high-cost outlier final rule (68 FR 34494).

Total payments to hospitals under the IPPS are relatively unaffected by changes in the capital prospective payments. Since capital payments constitute about 10 percent of hospital payments, a 1-percent change in the capital Federal rate yields only about 0.1 percent change in actual payments to hospitals. Aggregate payments under the capital PPS are estimated to increase in FY 2004 compared to FY 2003.

1. Capital Standard Federal Rate Update

a. Description of the Update Framework

Under § 412.308(c)(1), the capital standard Federal rate is updated on the basis of an analytical framework that takes into account changes in a capital input price index (CIPI) and several other policy adjustment factors. Specifically, we have adjusted the projected CIPI rate of increase as appropriate each year for case-mix index-related changes, for intensity, and for errors in previous CIPI forecasts. In the May 19, 2003 proposed rule (68 FR 27239), we proposed an update factor of 0.7 for FY 2004 under that framework based on the best data available at that time. Under that same update framework based on more recent data, the final update factor for FY 2004 is 0.7 percent. This final update factor is based on a 0.7 percent increase in the CIPI, a 0.0 percent adjustment for intensity, a 0.0 percent adjustment for case-mix, a 0.0 percent adjustment for the FY 2002 DRG reclassification and recalibration, and a forecast error correction of 0.0 percent. We explain the basis for the FY 2004 CIPI projection in section III.C. of this Addendum. Below we describe the policy adjustments that have been applied.

The case-mix index is the measure of the average DRG weight for cases paid under the IPPS. Because the DRG weight determines the prospective payment for each case, any

percentage increase in the case-mix index corresponds to an equal percentage increase in hospital payments.

The case-mix index can change for any of several reasons:

- The average resource use of Medicare patients changes ("real" case-mix change);
- Changes in hospital coding of patient records result in higher weight DRG assignments ("coding effects"); and
- The annual DRG reclassification and recalibration changes may not be budget neutral ("reclassification effect").

We define real case-mix change as actual changes in the mix (and resource requirements) of Medicare patients as opposed to changes in coding behavior that result in assignment of cases to higher weighted DRGs but do not reflect higher resource requirements. In the update framework for the PPS for operating costs, we adjust the update upwards to allow for real case-mix change, but remove the effects of coding changes on the case-mix index. We also remove the effect on total payments of prior year changes to the DRG classifications and relative weights, in order to retain budget neutrality for all case-mix index-related changes other than patient severity. (For example, we adjusted for the effects of the FY 2002 DRG reclassification and recalibration as part of our update for FY 2004.) We have adopted this case-mix index adjustment in the capital update framework as well.

For FY 2004, we are projecting a 1.0 percent total increase in the case-mix index. We estimate that real case-mix increase will equal 1.0 percent in FY 2004. Therefore, the net adjustment for case-mix change in FY 2004 is 0.0 percentage points.

We estimate that FY 2002 DRG reclassification and recalibration will result in a 0.0 percent change in the case-mix when compared with the case-mix index that would have resulted if we had not made the reclassification and recalibration changes to the DRGs. Therefore, we are making a 0.0 percent adjustment for DRG reclassification and recalibration in the update for FY 2004 to maintain budget neutrality.

The capital update framework contains an adjustment for forecast error. The input price index forecast is based on historical trends and relationships ascertainable at the time the update factor is established for the upcoming year. In any given year, there may be unanticipated price fluctuations that may result in differences between the actual increase in prices and the forecast used in calculating the update factors. In setting a prospective payment rate under the framework, we make an adjustment for forecast error only if our estimate of the change in the capital input price index for any year is off by 0.25 percentage points or more. There is a 2-year lag between the forecast and the measurement of the forecast error. A forecast error of 0.2 percentage points was calculated for the FY 2002 update. That is, current historical data indicate that the forecasted FY 2002 CIPI used in calculating the FY 2002 update factor (0.7 percent) overstated the actual realized price increases (0.5 percent) by 0.2 percentage points. This slight overprediction was mostly due to an underestimation of the

interest rate cuts by the Federal Reserve Board in 2002, which impacted the interest component of the CIPI. However, since this estimation of the change in the CIPI is less than 0.25 percentage points, it is not reflected in the update recommended under this framework. Therefore, we are making a 0.0 percent adjustment for forecast error in the update for FY 2004.

Under the capital PPS system framework, we also make an adjustment for changes in intensity. We calculate this adjustment using the same methodology and data that are used in the framework for the operating PPS. The intensity factor for the operating update framework reflects how hospital services are utilized to produce the final product, that is, the discharge. This component accounts for changes in the use of quality-enhancing services, for changes in within-DRG severity, and for expected modification of practice patterns to remove noncost-effective services.

We calculate case-mix constant intensity as the change in total charges per admission, adjusted for price level changes (the CPI for hospital and related services) and changes in real case-mix. The use of total charges in the calculation of the intensity factor makes it a total intensity factor, that is, charges for capital services are already built into the calculation of the factor. Therefore, we have incorporated the intensity adjustment from the operating update framework into the capital update framework. Without reliable estimates of the proportions of the overall annual intensity increases that are due, respectively, to ineffective practice patterns and to the combination of quality-enhancing new technologies and within-DRG complexity, we assume, as in the operating update framework, that one-half of the annual increase is due to each of these factors. The capital update framework thus provides an add-on to the input price index rate of increase of one-half of the estimated annual increase in intensity, to allow for within-DRG severity increases and the adoption of quality-enhancing technology.

As we discussed in the May 19, 2003 proposed rule (68 FR 27239), we have developed a Medicare-specific intensity measure based on a 5-year average. Past studies of case-mix change by the RAND Corporation ("Has DRG Creep Crept Up? Decomposing the Case Mix Index Change Between 1987 and 1988" by G. M. Carter, J. P. Newhouse, and D. A. Relles, R-4098-HCFA/ProPAC (1991)) suggest that real case-mix change was not dependent on total change, but was usually a fairly steady 1.0 to 1.4 percent per year. We use 1.4 percent as the upper bound because the RAND study did not take into account that hospitals may have induced doctors to document medical records more completely in order to improve payment.

We calculate case-mix constant intensity as the change in total charges per admission, adjusted for price level changes (the CPI for hospital and related services), and changes in real case-mix. As we noted above, in accordance with § 412.308(c)(1)(ii), we began updating the capital standard Federal rate in FY 1996 using an update framework that takes into account, among other things, allowable changes in the intensity of hospital