CMS Standardization Methodology For Allowed Amount– v.10

For Services Provided During 2006 – 2020 (updated May 2020)

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TABLE OF CONTENTS

1 RATIONALE FOR STANDARDIZATION METHODOLOGY

The purpose of payment standardization is to facilitate the measurement and meaningful comparison of resource use for services covered by Centers for Medicare and Medicaid (CMS) across provider types and geographic areas. Evaluating resource use for Medicare services allows for:

- analyzing resource use by providers or groups of providers for purposes of confidential feedback;

- developing episodes of care to compare provider performance in delivering a bundle of acute and post-acute services; and

- analyzing broader geographic differences in Medicare spending.

It is possible to capture some aspects of resource utilization when comparing actual spending across providers for particular services. However, this method has several limitations:

- Similar services can be provided through multiple channels. For example, beneficiaries can receive post-acute care services in skilled nursing facilities (SNFs), long-term care hospitals (LTCHs), inpatient rehabilitation facilities (IRFs), and through home health agencies (HHAs). In these cases, it is difficult to make comparisons across SNF days, LTCH and IRF stays, and HHA visits.

- The provision of similar services by different providers or practitioners, by the same practitioner in different settings, or by the same practitioner in the same setting in one or in multiple encounters has different cost implications.

- Spending data includes adjustments to amounts that are not necessarily representative of differences in utilization. For example, there are adjustments to national fee schedule amounts reflecting variation in wage or practice costs or payments to providers that support larger Medicare program goals. In order to make service use comparisons, standardization is used to transform the actual spending amounts into a standardized amount that excludes these adjustments.

The standardized payment methodology does the following:

- Preserves differences resulting from health care delivery choices such as the:
  - setting where the service is provided (e.g., physician office versus outpatient hospital);
  - type of healthcare professional who provides the service (e.g., physician versus nurse practitioner);
  - number of services provided in the same encounter; and
  - outlier cases.

- Excludes geographic differences in regional labor costs and practice expenses, as measured by hospital wage indexes and geographic practice cost indexes.

- Excludes payment adjustments from special Medicare programs not directly related to resource use for the service such as:
  - graduate medical education (GME) and indirect medical education (IME) payments;
  - disproportionate share payments (DSH) and uncompensated care payments (for serving a large low-income and uninsured population);
  - value based purchasing (VBP) payment adjustments; and
  - penalties related to the hospital readmission reduction program (HRRP), hospital acquired condition (HAC) reduction program, and quality reporting programs.
- Substitutes a national amount in the case of services paid on the basis of state fee schedules.

2 GENERAL CONSIDERATIONS

Standardization is performed after CMS claims processing is complete for National Claims History (NCH) claim records.[1] Please note that certain information used by Medicare Administrative Contractors (MACs) and Shared Systems to determine payment are not retained on NCH claims. In order to calculate standardized amounts, inputs (e.g., wage indexes) are gathered from public sources published by CMS. The standardization algorithm is also updated over time to incorporate new payment policies and methodology improvements. Appendix A of this document notes the differences between the up-to-date price standardization methodology used by CMS presented in this document and prior versions of the standardization methodology.

The calculation of standardized allowed amounts is restricted to Parts A and B claims and lines covered by Medicare as determined by processing indicators and payment variables, and described in the sections below.[2] Services not covered by Medicare receive a standardized allowed amount of $0. This algorithm applies to claims with service dates in 2006 or later.[3]

For claims with a through date on or after March 1, 2013, the Medicare payment portion of the standard allowed amount (not the standardized beneficiary deductible or coinsurance) is reduced by two percent for sequestration. Refer to the webpages below for information about the individual claim fields discussed in this document.

- [Research Data Assistance Center (ResDAC) website](#)
- [Chronic Conditions Data Warehouse (CCW) website](#)

For questions about the payment standardization methodology, please email cm-payment-standardization-support@acumenllc.com.

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[1] After claims processing, these NCH claims are available on the Integrated Data Repository (IDR).

[2] Generally, Part A claims and Part B institutional claims are restricted to claims with actual payment (CLM_PMT_AMT) greater than or equal to $0. Part B non-institutional claim lines were generally restricted to allowed line items, determined based on LINE_PRCSNG_IND_CD values of "A" (allowed), "R" (reprocessed) or "S" (secondary payer).

[3] Payment standardized amounts are calculated for claims billed from all 50 states, the District of Columbia, and all US territories.

3 INPATIENT HOSPITAL (ACUTE HOSPITAL)

Claims included

NCH_CLM_TYPE_CD = 60, 61 in addition to one of the following:

- Acute Hospitals: Substr(PROVIDER_ID,3,1) = 0

- Critical Access Hospitals (CAHs): Substr(PROVIDER_ID,3,2) = 13

- Children's Hospitals: Substr(PROVIDER_ID,3,2) = 33

- Cancer Hospitals: ID numbers (PROVIDER_ID) indicating cancer hospitals include 050146, 050660, 100079, 100271, 220162, 330154, 330354, 360242, 390196, 450076, and 500138

In general – the standardization method for acute hospital claims follows the inpatient prospective payment system (IPPS) payment rules. All IPPS hospitals, as well as Maryland waiver hospitals, critical access hospitals, cancer hospitals, and children's hospitals are included in this section. Although Maryland hospitals, CAHs, cancer hospitals and children's hospitals are paid under special systems, they provide a similar set of acute hospital services as IPPS hospitals. Since the goal of standardization is to allow for resource use comparisons across the country on an equal basis, all acute hospitals are standardized under the same methodology.

The standardization methodology is based on whether a claim is for a short-stay transfer or post-acute care (PAC) discharge, and on the associated Medicare Severity-Adjusted Diagnosis-Related Groups (MS-DRGs). For IP claims, any standardized outlier payments are constructed and added to the standardized allowed amount along with potential payments for new technology and blood clotting factors. Finally, claims with a $0 actual payment and no Medicare covered days are given a standardized payment of $0.

Interim claims are ignored except in cases where standardization relies initially on the observed payment amount.

Specifically

- Short-stay transfers or PAC discharges are identified when the claim covered length of stay (LOS) plus one is less than the geometric mean LOS for the associated MS-DRG, and if the claim contains:
  - a discharge status code indicating a transfer to an acute care facility; or
  - a discharge status code indicating discharge to PAC, with an MS-DRG on the list of MS-DRGs covered by the discharge to PAC policy.

- Transfer to an acute care facility is indicated by any of the following values in PTNT_DSCHRG_STUS_CD:
  - 02/82 - Discharged/transferred to other short term general hospital for inpatient care
  - 66/94 - Discharged/transferred to a CAH

- A discharge to PAC is indicated by any of the following values in PTNT_DSCHRG_STUS_CD:
    - 03/83 - Discharged/transferred to skilled nursing facility
    - 05/85 - Discharged/transferred to a children's or cancer hospital
    - 06/86 - Discharged/transferred to home care of organized home health service organization
    - 62/90 - Discharged/transferred to an inpatient rehabilitation facility including distinct parts units of a hospital
    - 63/91 - Discharged/transferred to a long term care hospitals
    - 65/93 - Discharged/transferred to a psychiatric hospital or psychiatric distinct unit of a hospital
    - 50/51 - Discharged/transferred to hospice care (Beginning October 1, 2018) [4]
- The following MS-DRGs are excluded from short-stay transfer adjustments:
    - MS-DRG 789 under version 25 of the MS-DRG Grouper, and 385 under version 24 indicating "Neonates Died or Transferred to Another Acute Care Facility"
- The post-acute DRG indicator on the yearly DRG weights file indicates whether the MS-DRG on the claim is subject to the "discharge to PAC" policy based on the list of MS-DRGs in the relevant regulation.
- Payments for blood clotting factors are found in line items with revenue center code 0636 and a blood clotting factor Healthcare Common Procedure Coding System (HCPCS) code. The blood clotting HCPCS are taken from the drug pricing files for a given year, and payment is calculated by multiplying the units on the claim by the payment limit on the average sale price (ASP) fee schedule. Clotting factor payments only apply to claims with a hemophilia diagnosis code.
- In the case where a DRG on a claim could be reduced to a lower severity level due to the presence of a hospital-acquired condition (HAC), the MS-DRG grouper is used to assign the DRG to each claim without the HAC reduction for the purposes of standardization. The HAC reduction is a penalty; using the DRG without the HAC reduction more accurately represents the resource use of the case and avoids rewarding poor care.
- For claims with split billing (e.g., when a claim is submitted for each month of a stay, rather than for the whole stay), procedure codes from all non-discharge claims are accumulated to the discharge claim and the MS-DRG grouper software assigns a DRG considering all procedures.
- Interim claims are identified based on missing discharge date (DSCHRG_DT is null).

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[4] Effective October 1, 2018, CR10602 outlined that discharges to hospice care qualify as a post-acute care transfer and may be subject to payment adjustments. For more information, please refer to CR10602.

3.1   Non-interim Claims

Description

- The standardized amount is built up from the national base payment rates for labor, non-labor, and capital items.

- The sum of these amounts is multiplied by the DRG weight for the discharge. For claims without a valid MS-DRG, the method for other inpatient claims (described in Section 4) is applied.

- For transfers, this amount is multiplied by a transfer fraction. For transfers between hospitals and PAC transfers for certain MS-DRGs, the transfer fraction is equal to the covered LOS plus one divided by the geometric mean length of stay (GMLOS) for that MS-DRG. For PAC transfers for special pay MS-DRGs, the transfer fraction is equal to the average of one and the covered LOS plus one divided by the GMLOS. Otherwise, the transfer fraction is one. This calculation is outlined by the transfer fraction formula below.

- For all claims standardized as IPPS, a standardized outlier amount is calculated. The detailed outlier calculation logic and formulas are noted below.

- In the presence of value code FD, which contains device payment reductions, the standardized allowed amount is reduced by the full device payment amount.

- A standardized new technology payment is constructed and included in the standardized allowed amount. This calculation is outlined below in the new technology payment calculation.

- A standardized clotting factor payment is constructed and included in the standardized allowed amount, if applicable.

- The relevant base rates, DRG schedule, and IPPS wage index crosswalk are dependent on the fiscal year and quarter of the claim.

Formula

Standard Allowed Amount Formula

$$\text{Standardized Allowed} = \left(\text{Operating Base Rate} + \text{Capital Base Rate}\right) \cdot \text{DRG Weight} \cdot \text{Transfer Fraction}$$
$$+ \text{Imputed Operating Outlier Amount} + \text{Imputed Capital Outlier Amount}$$
$$+ \text{New Tech Payment} + \text{Clotting Factor Payment} - \text{Device Payment, If Applicable}$$

Transfer Fraction Formula

$$\text{Transfer Fraction} = \begin{cases} \min 0.5 + 0.5 \cdot \dfrac{\left(\text{Covered LOS} + 1\right)}{\text{GMLOS}} \\ \min\left(\dfrac{\text{Covered Days} + 1}{\text{GMLOS}}\right) \end{cases}$$

Outlier Calculations

If Operating Cost + Capital Cost > Operating Threshold + Capital Threshold, then:

Imputed Operating Outlier Formula

$$\text{Imputed Operating Outlier} = \max\left[\text{Cost Sharing Factor} \cdot (\text{Operating Cost} - \text{Operating Threshold}), 0\right]$$

Imputed Capital Outlier Formula

$$\text{Imputed Capital Outlier} = \max\left[\text{Cost Sharing Factor} \cdot (\text{Capital Cost} - \text{Capital Threshold}), 0\right]$$

Else:

$$\text{Imputed Capital Outlier} = 0$$
$$\text{Imputed Operating Outlier} = 0$$

Operating Cost Formula

$$\text{Operating Cost} = \frac{\text{Covered Ch arg es} \cdot \text{Operating Cost to Charge Ratio (CCR)}}{(\text{IPPS Labor Share} \cdot \text{Wage Index}) + \left[\text{COLA} \cdot (1 - \text{IPPS Labor Share})\right]}$$

Capital Cost Formula

$$\text{Capital Cost} = \frac{\text{Covered Charges} \cdot \text{Capital CCR}}{\text{Wage Index}^{0.6848}}$$

Operating Threshold Formula

$$\text{Operating Threshold} = \text{Fixed Loss Amount} \cdot \text{Transfer Fraction} \cdot \frac{\text{Operating CCR}}{\text{Operating CCR} + \text{Capital CCR}}$$
$$+ \text{Operating Base Rate} \cdot \text{DRG Weight} \cdot \text{Transfer Fraction} + \text{New Tech Payment}$$

Capital Threshold Formula

$$\text{Capital Threshold} = \text{Fixed Loss Amount} \cdot \text{Transfer Fraction} \cdot \frac{\text{Capital CCR}}{\text{Operating CCR} + \text{Capital CCR}}$$
$$+ \text{Capital Base Rate} \cdot \text{DRG Weight} \cdot \text{Transfer Fraction}$$

Cost Sharing Factor Formula

$$\text{Cost Sharing Factor} = 0.9 \text{ for Burn DRG}; 0.8 \text{ for All Other DRGs}$$

New Technology Payment Formula

$$\text{New Technology Payment} = \sum_{T \in \{\text{New Tech Items}\}} \min \left(\begin{array}{l} \max \text{New Tech Payment, New Tech Add-on Factor} \cdot \\ \left(\text{Operating Cost - Operating Base Rate} \cdot \right. \\ \left. \text{DRG weight} \cdot \text{Transfer Fraction} \right) \end{array} \right)$$

Sources

- The national labor base rate, national non-labor base rate, national capital base rate, and fixed loss amount are taken from the relevant year's regulation.

- DRG weights are determined from the relevant year's regulation based on the MS-DRG assigned by the MS-DRG grouper software, not applying the HAC POA penalty.

- The covered LOS is the greater of the utilization day count (UTIL_DAY) and the cost report days count (CR_DAY) for the claim.

    o If both UTIL_DAY and CR_DAY are less than one, then calculate the covered length of stay as the greater of (i) the difference between the discharge date and the admission date, or (ii) a value of one, excluding periods of non-covered care. This calculation can be expressed as: LOS = max(DSCHRG_DT – ADMSN_DT, 1).

- The geometric mean length of stay (GMLOS) for each MS-DRG comes from the DRG weight table for the relevant year's regulation.

- The claim value amount (CLM_VAL_AMT) corresponding to a claim value code (CLM_VAL_CD) of 77 is the new technology payment for the claim.

- The claim value amount (CLM_VAL_AMT) corresponding to a claim value code (CLM_VAL_CD) of FD is the device payment on the claim.

- Wage index is determined by finding the post-reclassification core based statistical area (CBSA) from the inpatient provider-specific file for the provider ID (PROVIDER_ID) on the claim, and then using the IPPS wage index crosswalk included in the IPPS Pricer. Default value is 1.0.

- IPPS Labor Share is determined based on the wage index and fiscal year.

- Operating and capital cost to charge ratios (CCRs) are taken from the IPPS provider-specific file. If a CCR is not available for a provider, use the IPPS state average CCR.

- Covered charges are taken from CLM_TOT_CHRG_AMT minus IP_NCVR_CHRG_AMT. Any covered charges associated with revenue centers beginning with 081 and clotting factors are subtracted from this amount.

- The New Tech Add-on Factor is taken from each fiscal year's regulation and can vary depending on the type of technology involved.

3.2   Interim Claims

Description

For interim acute inpatient claims, the standardized amount is set to zero.

Formula

$$\text{Standardized Allowed} = 0$$

4 OTHER INPATIENT

Claims included

NCH_CLM_TYPE_CD = 60, 61 and otherwise not an acute hospital, CAH, LTCH, IPF, or IRF.

Description

The standardized amount is calculated starting with the actual payment amount on the claim and adding back any deductible and coinsurance. This total is then adjusted to remove differences in wages using the applicable area wage index. Finally, claims with a $0 actual payment and no Medicare covered days are given a standardized payment of $0.

Formula

$$\text{Standardized Allowed} = \frac{\text{Actual Payment} + \text{Deductible} + \text{Coinsurance}}{\left(\text{IPPS Labor Share} \cdot \text{Wage Index}\right) + \left(1 - \text{IPPS Labor Share}\right)}$$

Sources

- Actual payment amount is the sum of CLM_PMT_AMT and third party primary payer amounts including NCH_PRMRY_PYR_CLM_PD_AMT, plus any beneficiary coinsurance or deductible amount on the claim.

- Wage index is determined based on PROVIDER_ID. The CBSA of the provider is determined from the inpatient provider-specific file, and the associated wage index is identified from the IPPS wage index crosswalk on the CMS website. If the CBSA of a provider cannot be determined, a wage index of 1.0 is assumed.

- IPPS Labor Share is determined based on the wage index and fiscal year.

5   INPATIENT PSYCHIATRIC FACILITY (IPF)

Claims included

NCH_CLM_TYPE_CD = 60, 61 in addition to one of the following:

- Substr(PROVIDER_ID,3,2) = 40-44
- Substr(PROVIDER_ID,3,1) equal to either:
  - M for psych units in a CAH setting
  - S for psych units in an IPPS hospital setting

Description

- The standardized amount is calculated from the national base payment rate multiplied by the IPF DRG weight, the age factor, the comorbidity factor, and the variable per diem factor (based on covered LOS).
- The covered LOS is the greater of the utilization day count (UTIL_DAY) and the cost report days count (CR_DAY) for the claim.
  - If both UTIL_DAY and CR_DAY are less than one, then calculate the covered length of stay as the greater of (i) the difference between the discharge date and the admission date, or (ii) a value of one, excluding periods of non-covered care. This calculation can be expressed as: LOS = max(DSCHRG_DT – ADMSN_DT, 1).
- A standardized outlier amount is imputed based on total covered charges and the fixed loss threshold.
- If the claim indicates that electroconvulsive therapy (ECT) was provided, the ECT base amount is multiplied by ECT units.
- In the presence of modifier code FD, the standardized allowed amount is reduced by the full device payment amount.
- A standardized clotting factor payment is constructed and included in the standardized allowed amount, if applicable.
- Finally, claims with a $0 actual payment and no Medicare covered days are given a standardized payment of $0.

Formula

Standard Allowed Amount Formula

$$\text{Standardized Allowed} = \begin{pmatrix} \text{IPF Base Rate} \bullet \text{IPF DRG Weight} \bullet \text{Age Factor} \bullet \\ \text{Comorbid Factor} \bullet \text{Variable Per Diem Factor} \end{pmatrix}$$
$$+ \text{Imputed Outlier Amounts} + \left(\text{Electroconvulsive Therapy Base Rate} \bullet \text{Units} \right)$$
$$+ \text{Clotting Factor Payment} - \text{Device Therapy Payment, If Applicable}$$

<u>Outlier Calculation</u>

If Operating Costs > Operating Threshold, then Imputed Outlier Amount Formula:

$$\text{Imputed Outlier Amount} = 0.8 \cdot \text{Outlier Per Diem for First 9 Days} \\ + 0.6 \cdot \text{Outlier Per Diem for Remaining Days}$$

Operating Cost Formula

$$\text{Operating Costs} = \frac{\text{Covered Charges} \cdot \text{Operating CCR}}{\left(\text{IPF Labor Share} \cdot \text{Wage Index}\right) + \left[\text{COLA} \cdot \left(1 - \text{IPF Labor Share}\right)\right]}$$

Operating Threshold Formula

$$\text{Operating Threshold} = \left(\begin{array}{l}\text{IPF Base Rate} \cdot \text{IPF Adjustment Factor} \cdot \text{Age Factor} \\ \cdot \text{Comorbid Factor} \cdot \text{Variable Per Diem Factor}\end{array}\right) \\ + \left(\text{Electroconvulsive Therapy Base Rate} \cdot \text{Units}\right) \\ + \text{IPF Fixed Loss Amount}$$

Outlier Per Diem Formula

$$\text{Outlier Per Diem} = \frac{\text{Operating Costs} - \text{Operating Threshold}}{\text{LOS}}$$

Sources

- The national base payment amount, ECT base amount, and IPF labor share are taken from the relevant year's regulation.

- The IPF factor is determined by the weight from the relevant year's payment calculator tool for the MS-DRG listed on the claim (CLM_DRG_CD).

- The age factor is determined by the weight for the beneficiary's age from the relevant year's payment calculator tool. The beneficiary's age is determined by using BENE_DOB and CLM_ADMSN_DT on the claim.

- The comorbidity factor is determined for each comorbidity by the weight associated with the diagnosis code, procedure code, or combination of codes on the relevant year's comorbidity codes worksheet. All the secondary diagnoses and procedures on the claim (DGNS_CD and PRCDR_CD) are examined.

- The variable per diem factor is determined by the weight for the beneficiary's covered LOS from the relevant year's payment calculator tool.

- There is a differential payment for the first day of the stay depending on whether the facility had a full service emergency room (ER), which is indicated when TEMPRELF equals Y on the IPF provider-specific file.

- Operating CCRs are taken from the IPF provider-specific file. If a CCR is not available for the provider, use the IPF national average CCR.

- Wage index is determined based on PROVIDER_ID. The CBSA of the provider is determined from the IPF provider-specific file and the associated wage index is used from the IPF wage index crosswalk included in the IPF Pricer. If the CBSA of a provider cannot be determined, a wage index of 1.0 is assumed.

- IPF Labor Share is determined based on the fiscal year.

- ECT units come from REV_CNTR_UNIT_CNT when REV_CNTR equals 0901 and there is an ECT procedure code (ICD-9 procedure code 9427 or ICD-10 procedure codes GZB0ZZZ, GZB1ZZZ, GZB2ZZZ, GZB3ZZZ, GZB4ZZZ) on the claim.

- The claim value amount (CLM_VAL_AMT) corresponding to a claim value code (CLM_VAL_CD) of FD is the device payment on the claim.

- Covered charges are taken from CLM_TOT_CHRG_AMT minus IP_NCVR_CHRG_AMT. Any covered charges associated with revenue centers beginning with 081 and clotting factors are subtracted from this amount.

6 LONG-TERM CARE HOSPITAL (LTCH)

Claims included

NCH_CLM_TYPE_CD = 60, 61 and Substr (PROVIDER_ID, 3, 2) = 20-22

In general – standardization method for LTCH claims is based on whether the claim is for a short stay or a site neutral payment case.

Specifically

- Short stay outliers are claims with a covered LOS less than or equal to 5/6 of the GMLOS for the long term care (LTC) DRG.
- The covered LOS is the greater of the utilization day count (UTIL_DAY) and the cost report days count (CR_DAY) for the claim.
  - If both UTIL_DAY and CR_DAY are less than one, then calculate the covered length of stay as the greater of (i) the difference between the discharge date and the admission date, or (ii) a value of one, excluding periods of non-covered care. This calculation can be expressed as: LOS = max(DSCHRG_DT – ADMSN_DT, 1).
- Site neutral payment claims are identified by the Pricer return code.
  - Claims where the first digit of the Pricer return code is A, B, or C, and the second digit of the Pricer return code is A, B, or C, are standardized as 100 percent site neutral.
  - Claims where the first digit of the Pricer return code is A, B, or C, and the second digit of the Pricer return code is 0, 1, 2, 3, 4, 5, 6, or 7 are standardized as a 50/50 blend of site neutral payment and regular LTCH PPS payment.
- A standardized clotting factor payment is constructed and included in the standardized allowed amount, if applicable.
- Finally, claims with a $0 actual payment and no Medicare covered days are given a standardized payment of $0.

6.1 Short Stay Claims

Description

Prior to FY2018, the standardized amount for LTCH short-stay outlier (SSO) claims was constructed as the minimum of three approaches. The first approach adjusts the providers' operating costs to remove geographic variation. The second approach calculates the LTC DRG payment for a normal LOS, then adjusts for the short-stay LOS relative to the geometric mean LOS for that DRG. The third approach is the same as the second except the LTC DRG payment is blended with an analogous IPPS DRG payment according to the ratio of the LOS to the SSO threshold for the DRG.

Effective October 1, 2017, all SSO payment is calculated using a blended LTCH and IPPS payment rate. [5] Starting at this time, all LTCH SSO cases, including claims with an LOS below the IPPS threshold, use the blended IPPS and LTCH DRG rate.[6]

Formula

Standardized Allowed Amount Prior to FY2018

$$\text{Standardized Allowed} = \min\big(\text{Operating Costs, LTC DRG Payment, Blended DRG Payment}\big) + \text{Clotting Factor Payment}$$

Operating Cost Formula

$$\text{Operating Costs} = \frac{\text{Covered Charges} \bullet \text{Operating CCR}}{\big(\text{LTC Labor Share} \bullet \text{Wage Index}\big) + \big[\text{COLA} \bullet \big(1 - \text{LTC Labor Share}\big)\big]}$$

LTC DRG Payment Formula

$$\text{LTC DRG Payment} = \text{LTC Base Rate} \bullet \text{LTC DRG Weight} \bullet \min\left(\frac{\text{LOS}}{\text{GMLOS}} \bullet 1.2, \ 1\right)$$

Blended DRG Payment Formula

$$\text{LTC Blend} = \min\left(\frac{\text{LOS}}{\min(25, \text{ SSO Threshold})}, 1\right)$$

$$\text{Blended DRG Payment} = \text{LTC Blend} \bullet \text{LTC DRG Payment} + \big(1 - \text{LTC Blend}\big)$$
$$\bullet \text{ IPPS Base Rate} \bullet \text{IPPS DRG Weight} \bullet \min\left(\frac{\text{LOS}}{\text{GMLOS}} \bullet 1.2, 1\right)$$

Short Stay Outlier (SSO) Threshold Formula

$$\text{SSO Threshold} = \frac{5}{6} \bullet \text{GMLOS}$$

Standardized Allowed Amount After FY2018

$$\text{Standardized Allowed} = \text{Blended DRG Payment} + \text{Clotting Factor Payment}$$

Sources

- Wage index is determined by using the LTCH provider-specific file and the PROVIDER_ID to obtain the CBSA. The associated wage index is used from the LTCH

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[5] Effective October 1, 2017, LTCH discharges occurring in cost reporting periods beginning October 1, 2017, should be paid based 100 percent on the site neutral payment rate. For more information on this policy change, please refer to the FY2018 IP LTCH transmittal.
[6] Previous to FY2018, the blended DRG rate was only applied if the SSO LOS was above the IPPS comparable threshold. If the LOS was equal to or less than the IPPS threshold, SSO payment was determined using the IPPS rate alone.

wage index crosswalk included with the LTCH Pricer. If the CBSA of a provider cannot be determined, a wage index of 1.0 is assumed.

- LTC Labor Share is determined based on the fiscal year.

6.2   Claims with Normal Length of Stay

Description

- The standardized amount is calculated from the national base payment rate, which is multiplied by the LTC DRG weight for the discharge.

- An outlier amount is calculated based on operating costs and a loss threshold.

- The relevant base rates and DRG schedule depends on the fiscal year of the claim.

- In the presence of modifier code FD, the standardized allowed amount is reduced by the full device payment amount.

- A standardized clotting factor payment is constructed and included in the standardized allowed amount, if applicable.

Formula

Standard Allowed Amount Formula

$$\text{Standardized Allowed} = \left(\text{LTC Base Rate} \cdot \text{LTC DRG Payment}\right) + \text{Imputed Outlier Amount}$$
$$+ \text{Clotting Factor Payment} - \text{Device Payment, If Applicable}$$

Outlier Calculation

Imputed Outlier Amount Formula

$$\text{Imputed Outlier Amount} = \max\left[0.8 \cdot \left(\text{Operating Costs} - \text{Operating Threshold}\right), 0\right]$$

Operating Cost Formula

$$\text{Operating Costs} = \frac{\text{Covered Charges} \cdot \text{Operating CCR}}{\left(\text{LTC Labor Share} \cdot \text{Wage Index}\right) + \left[\text{COLA} \cdot \left(1 - \text{LTC Labor Share}\right)\right]}$$

Operating Threshold Formula

$$\text{Operating Threshold} = \left(\text{LTC Base Rate} \cdot \text{LTC DRG Weight}\right) + \text{LTC Fixed Loss Amount}$$

Sources

- National base rate and labor share are taken from the relevant year's regulation.

- LTC DRG weight is determined by looking up the weight from the relevant year's regulation for the MS-DRG assigned by the MS-DRG grouper software.

- Operating CCRs are taken from the LTCH provider-specific file. If a CCR is not available for the provider, use the LTCH state average CCR.

- Wage index is determined based on PROVIDER_ID. The CBSA of the provider is determined from the LTCH provider-specific file, and the associated wage index is used from the LTCH crosswalk included in the LTCH Pricer.

- The claim value amount (CLM_VAL_AMT) corresponding to a claim value code (CLM_VAL_CD) of FD is the device payment on the claim.

- A standardized clotting factor payment is constructed and included in the standardized allowed amount, if applicable.

- Covered charges are taken from CLM_TOT_CHRG_AMT minus IP_NCVR_CHRG_AMT. Any covered charges associated with revenue centers beginning with 081 and clotting factors are subtracted from this amount.

6.3 Site-neutral Payment Claims

Description

The standardized amount is constructed based on the lesser of an IPPS comparable standardized amount and operating costs.[7]

Formula

Standard Allowed Amount Formula

$$\text{Standardized Allowed} = \min(\text{Operating Costs, IPPS Comparable Payment})$$
$$\bullet \text{ Site Neutral Budget Neutrality Factor} \bullet \text{ Imputed Outlier Amounts}$$
$$+ \text{ Clotting Factor Payment} - \text{Device Payment, If Applicable}$$

IPPS Comparable Payment Formula

$$\text{IPPS Comparable Payment} = \text{IPPS Base Rate} \bullet \text{IPPS DRG Weight} \bullet \min\left(\frac{\text{LOS}}{\text{GMLOS}}, 1\right) \bullet 0.954 \quad [8]$$

Operating Cost Formula

$$\text{Operating Costs} = \frac{\text{Covered Charges} \bullet \text{Operating CCR}}{(\text{LTC Labor Share} \bullet \text{Wage Index}) + \left[\text{COLA} \bullet (1 - \text{LTC Labor Share})\right]}$$

Outlier Calculation

Imputed Outlier Amount Formula

$$\text{Imputed Outlier Amount} = \max\left[0.8 \bullet (\text{Operating Costs} - \text{Operating Threshold}), 0\right]$$

---

[7] Effective October 1, 2017, LTCH discharges occurring in cost reporting periods beginning October 1, 2017, should be paid based 100 percent on the site neutral payment rate. For more information on this policy change, please refer to the FY2018 IP LTCH transmittal.

[8] Effective October 1, 2017, the IPPS comparable amount was reduced by 4.6 percent. For more information on this policy change, please refer to CR10547.

Operating Threshold Formula

$$\text{Operating Threshold} = \begin{bmatrix} \min(\text{Operating Costs, IPPS Comparable Payment}) \\ + \text{ IPPS Fixed Loss Amount} \end{bmatrix}$$
$$\bullet \text{ Site Neutral Budget Neutrality Factor}$$

Sources

- IPPS national base rate and LTC labor share are taken from the relevant year's regulation.

- IPPS DRG weight is determined by the weight from the relevant year's regulation for the MS-DRG assigned by the MS-DRG grouper software.

- Operating CCRs are taken from the LTCH provider-specific file. If a CCR is not available for the provider, use the LTCH state average CCR.

- Wage index is determined based on PROVIDER_ID. The CBSA of the provider is determined from the LTCH provider-specific file, and the associated wage index is used from the LTCH crosswalk included in the LTCH Pricer.

- The claim value amount (CLM_VAL_AMT) corresponding to a claim value code (CLM_VAL_CD) of FD is the device payment on the claim.

- A standardized clotting factor payment is constructed and included in the standardized allowed amount, if applicable.

- Covered charges are taken from CLM_TOT_CHRG_AMT minus IP_NCVR_CHRG_AMT. Any covered charges associated with revenue centers beginning with 081 and clotting factors are subtracted from this amount.

7   INPATIENT REHABILITATION FACILITY (IRF)

Claims included

NCH_CLM_TYPE_CD = 60, 61 in addition to one of the following:

- Substr(PROVIDER_ID,3,4) = 3025-3099
- Substr(PROVIDER_ID,3,1) equal to:
  - R for rehab units in CAH
  - T for rehab units in IPPS hospital

In general – standardization method for IRF claims is based on whether the claim is for a short stay with discharge to certain post-acute settings. Claims with a $0 actual payment and no Medicare covered days are given a standardized payment of $0.

Specifically

- The covered LOS is the greater of the utilization day count (UTIL_DAY) and the cost report days count (CR_DAY) for the claim.
  - If both UTIL_DAY and CR_DAY are less than one, then calculate the covered LOS as the greater of (i) the difference between the discharge date and the admission date, or (ii) a value of one, excluding periods of non-covered care. This calculation can be expressed as: LOS = max(DSCHRG_DT – ADMSN_DT,1).
- The short stay is determined by COVERED_DAYS less than or equal to three. Regardless of the case mix group (CMG) assignment, the stay is assigned the short stay CMG.
- Covered LOS should be less than the average length of stay for that CMG and tier. The discharge status code is one of the following:
  - 02 - Discharged/transferred to other short term general hospital for inpatient care
  - 03 - Discharged/transferred to skilled nursing facility
  - 61 - Discharged/transferred within this institution to a hospital-based Medicare approved swing bed
  - 62 - Discharged/transferred to an inpatient rehabilitation facility including distinct parts units of a hospital
  - 63 - Discharged/transferred to a long term care hospitals
  - 64 - Discharged/transferred to a nursing facility certified under Medicaid but not under Medicare
  - 82 - Discharged/transferred to a short term general hospital for inpatient care with a planned acute care hospital inpatient readmission
  - 83 - Discharged/transferred to a skilled nursing facility with Medicare certification with a planned acute care hospital inpatient readmission

- 89 - Discharged/transferred to a hospital-based Medicare approved swing bed with a planned acute care hospital inpatient readmission
- 90 - Discharged/transferred to an inpatient rehabilitation facility including rehabilitation distinct part units of a hospital with a planned acute care hospital inpatient readmission
- 91 - Discharged/transferred to a Medicare certified long term care hospital with a planned acute care hospital inpatient readmission
- 92 - Discharged/transferred to nursing facility certified under Medicaid but not certified under Medicare with a planned acute care hospital inpatient readmission

Description

- When appropriate, a short-stay transfer adjustment is calculated based on the covered LOS and the CMG average length of stay.
- The standardized amount is built up from the national base payment rate, which is multiplied by the CMG weight for the discharge.
- A standardized outlier amount is imputed based on covered charges and a loss threshold.
- The base rates and the CMG schedule used depend on the fiscal year of the claim.
- In the presence of value code FD, the standardized allowed amount is reduced by the full device offset amount.
- A standardized clotting factor payment is constructed and included in the standardized allowed amount, if applicable.

Formula

Standard Allowed Amount Formula

$$\begin{aligned} \text{Standardized Allowed} = &\left(\text{IRF Base Rate} \bullet \text{CMG Weight} \bullet \text{Transfer Adjustment, If Applicable}\right) \\ &+ \text{Imputed Outlier Amount} + \text{Clotting Factor Payment} - \text{Device Payment, If Applicable} \end{aligned}$$

Transfer Adjustment Formula

$$\text{Transfer Adjustment} = \frac{\text{LOS} + 0.5}{\text{CMG Average LOS}}$$

Outlier Calculation

Imputed Outlier Amount Formula

$$\text{Imputed Outlier Amount} = \max\left[0.8 \bullet \left(\text{Operating Costs} - \text{Operating Threshold}\right), 0\right]$$

Operating Costs Formula

$$\text{Operating Costs} = \frac{\text{Covered Charges} \bullet \text{Operating CCR}}{\left(\text{IRF Labor Share} \bullet \text{Wage Index}\right) + \left(1 - \text{IRF Labor Share}\right)}$$

Operating Threshold Formula

$$\text{Operating Threshold} = \big(\text{IRF Base Rate} \cdot \text{CMG Weight} \cdot \text{Transfer Adjustment}\big) + \text{IRF Fixed Loss Amount}$$

Sources

- The national base rate and labor share taken from the relevant year's regulation.

- The CMG weights are taken from each year's regulation.

- The CMG code is found in the REV_CNTR_APC_HIPPS_CD or HCPCS_CD when REV_CNTR equals 0024:

  - The CMG code in REV_CNTR_APC_HIPPS_CD is used if it is not missing; otherwise the code in HCPCS_CD is used.

  - The first letter determines the tier as follows:
    - B equals Tier 1
    - C equals Tier 2
    - D equals Tier 3
    - A equals None

  - The last four digits gives the CMG number.

- Operating CCRs are taken from the IRF provider-specific file. If a CCR is not available for the provider, use the IRF national average CCR.

- The wage index is determined based on PROVIDER_ID and the IRF provider-specific file. The CBSA of the provider is taken from the IRF provider-specific file, and the associated wage index is used from the IRF wage index file included with the IRF Pricer on the CMS website. If the CBSA of a provider cannot be determined, a wage index of 1.0 is assumed.

- The claim value amount (CLM_VAL_AMT) corresponding to a claim value code (CLM_VAL_CD) of FD is the device payment on the claim.

- A standardized clotting factor payment is constructed and included in the standardized allowed amount, if applicable.

- Covered charges are taken from CLM_TOT_CHRG_AMT minus IP_NCVR_CHRG_AMT. Any covered charges associated with revenue centers beginning with 081 and clotting factors are subtracted from this amount.

- The average LOS for each CMG tier comes from the IRF PPS final rule table for the relevant year.

8   SKILLED NURSING FACILITY (SNF)

Claims included

NCH_CLM_TYPE_CD = 20, 30 (for beneficiaries with Part A who have not exhausted their coverage)

In general – the standardization method for SNF claims is based on whether the beneficiary is receiving traditional inpatient services and if the beneficiary has Part A coverage available. If the beneficiary has coverage available, the method depends on whether the claim is for a CAH swing bed or a SNF PPS. Finally, claims with a $0 actual payment are given a standardized payment of $0.

Specifically

- For CAH swing bed claims, the standardized amount is calculated at a claim level, starting with the actual claim payment and adjusting to remove any geographic differences.

- For non-CAH swing bed claims with REV_CNT equals 0022 and service dates prior to FY2020, standardization follows the method for SNF PPS claims as these lines provide the resource utilization group (RUG) and associated units needed to standardize payment using the SNF PPS methodology.

- For non-CAH swing bed claims with REV_CNT equals 0022 and service dates in or after FY2020, standardization follows the method for SNF Patient-Driven Payment Model (PDPM) claims, as these lines provide the Health Insurance Prospective Payment System (HIPPS) code used in determining the daily payment rate. Furthermore, the daily payment rate is adjusted based on a variable per diem (VPD) adjustment.

- Other lines on SNF PPS claims are excluded from the standardization calculation, regardless of claim service date.

- For other paid SNF claims, such as those not paid as a CAH swing bed or under RUG or PDPM, standardization adjusts the actual claim payment amount and removes any geographic differences, similar to the method used for CAH swing bed claims.

8.1   CAH Swing Bed Claims

Description

The standardized amount starts with the actual payment amount on the claim and adds in any coinsurance. This total is then adjusted to remove differences in area wages.

Formula

$$\text{Standardized Allowed} = \frac{\text{Actual Payment} + \text{Coinsurance}}{\left(\text{SNF Labor Share} \bullet \text{Wage Index}\right) + \left(1 - \text{SNF Labor Share}\right)}$$

Sources

- Actual payment amount is CLM_PMT_AMT plus any third party primary payer amount on the claim.

- SNF labor share is taken from the relevant year's regulation.

- Wage index is determined based on PROVIDER_ID. The first two digits of the provider ID are used to identify the provider's state. Then, the state rural wage index from the SNF crosswalk on CMS website is determined.

8.2   SNF PPS Claims

Description

For Claims with Service Dates Prior to FY2020

- In each year's regulation, an urban rate and a rural rate are published for each RUG. The standardized amount is built up from the average of the urban and rural base rates for each RUG.

- The per diem amount is multiplied by the number of covered days for each RUG on the claim.

- An additional 128 percent is provided for beneficiaries with HIV/AIDS, by increasing the standardized RUG rate by 128 percent.

- If the RUG on the revenue center line cannot be matched to a RUG weight, the formula for CAH swing beds is used.

For Claims with Service Dates Beginning in FY2020

- An urban rate and a rural rate are published for each PDPM group in each year's regulation. Each PDPM group is defined by a five-digit HIPPS code. The first four digits of the HIPPS code contain four case-mix groups (CMGs) based on patient characteristics, while the fifth digit contains the assessment indicator (AI) noting the type of evaluation that was performed to generate the CMGs. The four CMGs, in the order they appear in the HIPPS code, are as follows:

    o   Physical and Occupational Therapy (PT/OT)

    o   Speech-Language Pathology (SLP)

    o   Nursing

    o   Non-Therapy Ancillary (NTA)

- The per diem amount is determined by the individual per diem rates of the four CMGs. The PT/OT and NTA CMGs are subject to the VPD adjustment, meaning that these components have their payment rates lowered over time.

- For beneficiaries with HIV/AIDS, beginning in FY2020, the payment rate of the nursing CMG is increased by 18 percent, while the NTA CMG receives a higher payment rate depending on other comorbidities.

- If the HIPPS code is incomplete, the formula for CAH swing beds is used.

Formula

For Claims with Service Dates Prior to FY2020

$$\text{Standardized Allowed} = \text{Standardized RUG Rate} \cdot \text{Days}$$

For Claims with Service Dates Beginning in FY2020

$$\text{Standardized PDPM Per Diem Rate} = \text{PT Rate} \cdot \text{PT/OT VPD factor}$$
$$+ \text{OT Rate} \cdot \text{PT/OT VPD factor} + \text{SLP Rate}$$
$$+ \text{Nursing Rate} \cdot (1 + \text{HIV/AIDS add-on factor, if applicable})$$
$$+ \text{NTA Rate} \cdot \text{NTA VPD factor} + \text{Non-Case-Mix Rate}$$

$$\text{Standardized Allowed} = \sum_{d=\text{Prior days}+1}^{\text{Prior days}+\text{Days}} \text{Standardized PDPM Per Diem Rate}_d$$

Sources

- In each year's regulation, an urban and a rural rate are published for each RUG or PDPM group. The standardized amount is built up from the average of the urban and rural base rates for each RUG or PDPM group.

- On line items with REV_CNTR equals 0022 with service dates prior to FY2020, the RUG is the first three characters of HCPCS_CD. For claims starting in FY2020, the PDPM code is the first four digits of HCPCS_CD.

- Number of SNF days is REV_CNTR_UNIT_CNT.

- For SNF PDPM claims, a VPD adjustment factor from the relevant year's regulation is applied to the PT/OT and NTA components of the claim. This VPD adjustment factor adjusts the payment for these components to reflect resource use over time.

- The 'prior days' variable in SNF PDPM claim payment calculation is not retained on SNF claims. This value is calculated in standardization by summing the CR_DAYS value from prior SNF PDPM claims that share the same beneficiary identification number, admission date, and SNF facility CMS Certification Number (CCN) as the current claim.

- The HIV/AIDS adjustment is applicable if any diagnosis code listed on the claim (DGNS_CD) is 042 (ICD-9) or B20 (ICD-10). This adjustment includes the payment add-on factor to the nursing rate, as well as an adjustment to the NTA component of the PDPM code to map to a higher payment classification.

  - In terms of the NTA adjustment, a claim with an NTA component in NTA group "A", "B", "C", or "D" would be mapped into NTA group "A" with the HIV/AIDS adjustment. A claim with an NTA component in group "E" would be mapped into group "B" with the HIV/AIDS adjustment, and a claim with an NTA component in group "F" would be mapped into group "C" with the HIV/AIDS adjustment. The NTA rate is also based on the adjusted NTA component group.

- Both RUG and PDPM claims receive a Non-Case Mix Adjusted Rate taken from the relevant year's regulation in addition to the payment rates assigned to each RUG and PDPM group according to the CMGs on the claim.

9 HOME HEALTH AGENCY (HHA)

Claims included

NCH_CLM_TYPE_CD = 10

In general – the standardization method for HHA claims is based on if the claim represents a full HHA episode/period, a low utilization payment adjustment (LUPA) episode/period, or a partial episode/period payment (PEP). If actual allowed amount is $0, then standard allowed is set to $0.

Specifically

Claims receive special treatment if any of the following is applicable:

- REV_CNTR equals 0023 is indicated more than once on a single claim (which occurs when there is more than one home health resource group (HHRG) on a single claim due to a significant change in condition)

- Pricer return code equals 09, 11, 12, or 13, which indicates PEP

- Pricer return code equals 06 or 14, which indicates LUPA

- Pricer return code equals 03, 04, or 05, which indicates a request for anticipated payment (RAP)[9]

9.1 Significant Change in Condition

Description

- For claims prior to 2008, some claims have more than one 0023 line item. In these cases, the payment is calculated in the same manner as a full episode. However, each HHRG is weighted by the number of days in the revenue center units field. For claims with service dates prior to CY2020, the sum of these units across the HHRGs on a claim is 60. For claims with service dates beginning in CY2020, the sum of these units across the HHRGs on a claim is 30.

- Any outlier payments from the claim are added to the core cost after adjusting to remove differences in wage costs. The weight applied to the wage index is equal to the HHA labor share.

- Any add-ons for prosthetics and orthotics, DME, or oxygen are taken as is from the claim.

- For claims in 2006, a rural adjustment factor of 2.5% is applied across all HH episodes.

---

[9] Beginning in CY2020, the Pricer return code 05 will no longer be used.

Formula

For Claims with Service Dates Prior to CY2020

$$\text{Standardized Allowed} = \sum \left[\left(\text{Base} \cdot \text{HHRG weight} \right) \right] \cdot \frac{\text{Days}}{60} \cdot \left(1 + \text{Rural Adjustment Factor} \right)$$

$$+ \frac{\text{Outlier Payment}}{\left(\text{HHA Labor Share} \cdot \text{Wage Index} \right) + \left(1 - \text{HHA Labor Share} \right)} + \text{ Actual Payment for Add-ons}$$

For Claims with Service Dates Beginning in CY2020

$$\text{Standardized Allowed} = \sum \left[\left(\text{Base} \cdot \text{HHRG weight} \right) \right] \cdot \frac{\text{Days}}{30} \cdot \left(1 + \text{Rural Adjustment Factor} \right)$$

$$+ \frac{\text{Outlier Payment}}{\left(\text{HHA Labor Share} \cdot \text{Wage Index} \right) + \left(1 - \text{HHA Labor Share} \right)} + \text{ Actual Payment for Add-ons}$$

Sources

- Days for each HHRG are found in the REV_CNTR_UNIT_CNT variable.

- Please see HHA claim sub-sections 9.2 through 9.4 for remaining sources.

9.2   Low Utilization Payment Adjustment (LUPA) Episodes

Description

- The standardized amount is calculated from the number of visits of each type and the associated per-visit base rate for the calendar year. Claims from 2008 and later receive an add-on amount if the episode/period is the only episode/period, or the first episode/period in a sequence of adjacent episodes/periods separated by no more than 60 days without home health care.

- Beginning in 2014, a LUPA add-on is applied for the first physical therapy (042x), speech-language pathology (044x), or skilled nursing (055x) visit of the episode/period.

Formula

$$\text{Standardized Allowed} = \left(\sum \# \text{ of Visits of each Type} \cdot \text{Visit Rate of Each Type} \right)$$
$$+ \left(\text{LUPA Add-on, If Applicable} \right)$$

Sources

- Per-visit rates are taken from the relevant year's regulation for each revenue center visit code (042x, 043x, 044x, 055x, 056x, 057x).

- Number of visits is the number of covered line items for a revenue center visit code.

9.3   Partial Episode Payment (PEP) Claims

Description

- For PEP claims, payment is calculated as if a full episode/period has occurred. The calculated payment is multiplied by the number of days between the first and last covered visit. For claims with service dates prior to CY2020, the calculated payment is divided by 60. For claims with service dates starting in CY2020, the calculated payment is divided by 30.

- For claims with service dates prior to CY2020, a non-routine supply (NRS) amount is added based on the fifth character in the Health Insurance Prospective Payment System (HIPPS) code. For claims with service dates beginning in CY2020, NRS payments are part of the HHRG rate, instead of being an add-on.

- Any outlier payments from the claim are added to the calculated amount after adjusting to remove differences in wage costs. The weight applied to the wage index is equal to the HHA labor share.

- Add-ons for prosthetics and orthotics, DME, or oxygen are taken as is from the claim.

- For claims in 2006, a rural adjustment factor of 2.5% is applied to all HH episodes. For claims from 2010 to 2018, the rural adjustment factor is 1.5% for all episodes. Beginning in 2019, the rural adjustment factor is calculated as a weighted average based on the relevant year's add-on rates and HH utilization, and is applied for all episodes/periods.

Formula

For Claims with Service Dates Prior to CY2020:

$$
\begin{aligned}
\text{Standardized Allowed} = &\sum \Big[\big(\text{Base Rate} \cdot \text{HHRG Weight}\big) + \text{Supply Amount} \Big] \\
&\cdot \frac{\big(\text{Last Visit Date} - \text{First Visit Date}\big)}{60} \cdot \big(1 + \text{Rural Adjustment Factor}\big) \\
&+ \frac{\text{Outlier Payment}}{\big(\text{HHA Labor Share} \cdot \text{Wage Index}\big) + \big(1 - \text{HHA Labor Share}\big)} + \text{Actual Payment for Add-ons}
\end{aligned}
$$

For Claims with Service Dates Beginning in CY2020:

$$
\begin{aligned}
\text{Standardized Allowed} = &\sum \Big[\big(\text{Base Rate} \cdot \text{HHRG Weight}\big) \Big] \\
&\cdot \frac{\big(\text{Last Visit Date} - \text{First Visit Date}\big)}{30} \cdot \big(1 + \text{Rural Adjustment Factor}\big) \\
&+ \frac{\text{Outlier Payment}}{\big(\text{HHA Labor Share} \cdot \text{Wage Index}\big) + \big(1 - \text{HHA Labor Share}\big)} + \text{Actual Payment for Add-ons}
\end{aligned}
$$

Sources

- Labor share is taken from the relevant year's regulation.

- Visit dates are for line items with revenue center codes in 042x, 043x, 044x, 055x, 056x, 057x. The date is found in REV_CNTR_DT.

9.4 Full HHA Episodes/Periods

Description

- The standardized amount is calculated from the base rate which is multiplied by the applicable HHRG weight based on the first four positions of the HIPPS code.

- For claims prior to CY2020, a supply amount is added based on the fifth position HIPPS code. For claims with service dates beginning in CY2020, NRS payments are part of the HHRG rate, instead of an add-on.

- For claims before CY2020, the HH episode length is 60 days. For claims beginning in CY2020, the HH episode length is reduced to 30 days.

- Any outlier payments from the claim are added to the calculated amount after adjusting to remove differences in wage costs. The weight applied to the wage index is equal to the HHA labor share.

- Any add-ons for prosthetics and orthotics, DME, or oxygen are taken as is from the claim.

- In the case of a RAP claim, the product of the base rate and HHRG weight is multiplied by the RAP factor. For claims beginning in CY2020, the RAP factor for existing HH providers (HHAs operating before January 1, 2019) is reduced from 60/40 and 50/50, to 20/80. New HHAs (those that began operation on or after January 1, 2019) are not eligible for RAP payments. RAP payments are unaffected by the sequestration reduction.

- For claims in 2006, a rural adjustment factor of 2.5% is applied across all HH episodes. For claims from 2010 to 2018, the rural adjustment factor remains at 1.5% across all episodes. Beginning in CY2019, the rural adjustment factor is calculated as a weighted average based on the relevant year's add-on rates and HH utilization, and is applied for all episodes.

Formula

For Claims with Service Dates Prior to CY2020:

$$\text{Standardized Allowed} = \sum \left[\left(\text{Base Rate} \bullet \text{HHRG Weight} \right) + \text{Supply Amount} \right] \bullet \left(\text{RAP Factor, If Applicable} \right)$$

$$\bullet \left(1 + \text{Rural Adjustment Factor} \right) + \frac{\text{Outlier Payment}}{\left(\text{HHA Labor Share} \bullet \text{Wage Index} \right) + \left(1 - \text{HHA Labor Share} \right)}$$

$$+ \text{Actual Payment for Add-ons}$$

For Claims with Service Dates Beginning in CY2020:

$$\text{Standardized Allowed} = \sum \left[\left(\text{Base Rate} \bullet \text{HHRG Weight} \right) \right] \bullet \left(\text{RAP Factor, If Applicable} \right)$$

$$\bullet \left(1 + \text{Rural Adjustment Factor} \right) + \frac{\text{Outlier Payment}}{\left(\text{HHA Labor Share} \bullet \text{Wage Index} \right) + \left(1 - \text{HHA Labor Share} \right)}$$

$$+ \text{Actual Payment for Add-ons}$$

Sources

- Base rates are taken from the relevant year's regulation.

- Beginning in CY2020, the Pricer return code 05 will no longer be used to indicate a RAP factor. Episodes qualifying for the 20/80 RAP factor introduced in CY2020 will be identified with a Pricer return code of 04.

- The HHRG weight (HIPPS_WGT) is the weight corresponding to the HHRG reported on the line where REV_CNTR equals 0023. The HHRG is either (i) the first four characters of REV_CNTR_APC_HIPPS_CD, or (ii) the first four characters of HCPCS_CD when the REV_CNTR_APC_HIPPS_CD equals 00000.

  o In 2007, and to some extent in 2008, HHRGs are comprised of three characters in the schedule. In these cases, the HHRG is the three characters from the second position to the fourth position of HCPCS_CD.

- HHRG supply weight, for claims before CY2020, is the weight corresponding to either the fifth character of REV_CNTR_APC_HIPPS_CD or, if REV_CNTR_APC_HIPPS_CD equals 00000, the fifth character of HCPCS_CD.

- Outlier payment is taken from CLM_VAL_AMT on the claim when CLM_VAL_CD equals 17.

- Wage index is determined based on the CBSA of the beneficiary. If the value code (CLM_VAL_CD) equals 61, the value amount (CLM_VAL_AMT) is the code for the CBSA of the beneficiary. The associated wage index is taken from the HH wage index file included in the HH Pricer software. If the CBSA of a beneficiary cannot be determined, a wage index of 1.0 is assumed.

- Add-ons are taken from REV_CNTR_PMT_AMT and REV_CNTR_WAGE_ADJSTD_COINS_AMT on the claim when REV_CNTR is:

  o 0274 for prosthetics and orthotics

  o 029x for DME

  o 060x for oxygen

10 HOSPICE

Claims included

NCH_CLM_TYPE_CD = 50

In general – the standardization method for hospice claims is based on whether the revenue center line is for physician or nurse practitioner services, or falls into one of the four hospice service categories. The various hospice service categories use the same standardization formula with the exception of continuous home care as this category is billed at an hourly rate.

If actual payment is $0, then the standard allowed amount is also set to $0. The base rates used in the hospice standardization formulas depend on the fiscal year of the date of service on the claim.

Specifically

Revenue center lines are categorized based on the revenue center code (REV_CNTR) used:

- 0657 indicates a revenue center line for services furnished to patients by physician or nurse practitioner
- 0652 indicates a revenue center line for continuous home care
- 0651 indicates a revenue center line for routine home care
- 0655 indicates a revenue center line for inpatient respite care
- 0656 indicates a revenue center line for general inpatient care
- 055X indicates a revenue center line for skilled nursing services
- 056X indicates a revenue center line for medical social services
- 0771 indicates a revenue center line for vaccine administration
- 0636 indicates a revenue center line for drugs requiring specific identification, used for vaccines [10]

10.1 Physician Services

Description

Hospice line items with revenue code 0657 are paid under the physician fee schedule, so the standardization methodology is the same in concept as that for physician services. Differences result from the use of institutional rather than non-institutional claims (e.g., revenue center lines on institutional claims are conceptually equivalent to line items on non-institutional claims, but

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[10] Revenue center lines with revenue center codes 0771 and 0636 were included in FY2017 based on CR9052 and CR9876 indicating that hospice providers may bill for vaccine services on institutional claims. For more information, please refer to CR9052 and CR9876.

have different names). On these line items, the modifier code GV indicates nurse practitioner services; these lines receive the 15 percent nurse practitioner reduction.

Effective October 1, 2016, this category includes vaccine administration services covered on Hospice lines billed with revenue center code 0771.[11]

10.2 Continuous Home Care (CHC)

Description

The standardized amount is built up from the applicable base rate, which is multiplied by the number of hours for which services were provided.

Formula

$$\text{Standardized Allowed} = \text{CHC Base} \cdot \min\left(\frac{\text{Revenue Center Unit Count}}{4, \text{ If Applicable}}, 24\right)$$

Sources

- Base rates are taken from an annual change request issued regarding the Medicare Claims Processing Manual in late July or early August each year.

- For claims in 2007 and later, units are reported in 15-minute increments, so REV_CNTR_UNIT_CNT must be divided by four. Unit counts are a maximum of 24 hours, but this claim-processing edit is not reflected on the paid claim in the IDR.

- If the unit count is less than 32 (eight hours), one unit of routine home care is assigned instead.

10.3 Routine Home Care (RHC), Inpatient Respite Care (IRC), and General Inpatient Care (GIC)

Description

The standardized amount is built up from the applicable base rate, which is multiplied by the unit count.

Formula

$$\text{Standardized Allowed} = \text{Base} \cdot \min\left(\text{Revenue Center Unit Count, LOS}\right)$$

Sources

- Base rates are taken from an annual change request issued regarding the Medicare Claims Processing Manual in late July or early August each year.

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[11] Effective October 1, 2016, Medicare hospice providers may bill for vaccine services on institutional claims. For more information on this policy change, please refer to CR9052 and CR9876.

- Units are reported in days. The LOS is set equal to REV_UNIT, the number of utilization days reported on the claim.

- Beginning January 1, 2016, there are two base rates for RHC. A high RHC base rate applies for the first 60 covered days of a hospice episode of care and a low RHC base rate applies for days after 60.

10.4 End of Life (EOL) Service Intensity Add-on (SIA)

Description

Beginning January 1, 2016, the standardized amount is built up from the CHC base rate multiplied by the unit count. The unit count represents the number of hours (up to a maximum of four hours) of skilled nursing provided by a registered nurse and medical social services provided by a clinical social worker on an RHC day during the last seven days of life.

Formula

$$\text{Standardized Allowed} = \text{CHC Base} \cdot \min\left(\frac{\text{Revenue Center Unit Count}}{4}, 4\right)$$

Sources

- Base rates are taken from the annual Change Request for the Medicare Claims Processing Manual issued in late July or early August every year.

- Units are reported in 15-minute increments, so REV_CNTR_UNIT_CNT must be divided by four to convert to hours.

10.5 Vaccines

Description

Effective October 1, 2016, vaccines may be billed on institutional hospice claims to simplify billing requirements for hospice providers that provide vaccines to beneficiaries who request them. The standardized amount for vaccines on hospice claims is calculated based on 95 percent of the average wholesale price (AWP) for the vaccine HCPCS. [12]

Formula

$$\text{Standardized Allowed} = 95\% \text{ AWP} \cdot \text{Revenue Center Unit Count}$$

Sources

- Vaccine rates, based on 95 percent of AWP, are taken from the seasonal influenza vaccine pricing schedule and the Part B Drug ASP file

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[12] Effective October 1, 2016, Medicare hospice providers may bill for vaccine services on institutional claims. For more information on this policy, please refer to CR9052 and CR9876.

11 RURAL HEALTH CLINIC (RHC) OR FEDERALLY QUALIFIED HEALTH CENTER (FQHC)

Claims included

NCH_CLM_TYPE_CD = 40 and CLM_FAC_TYPE_CD = 7, in addition to one of the following:

- CLM_SRVC_CLSFCTN_TYPE_CD = 1 for RHCs

- CLM_SRVC_CLSFCTN_TYPE_CD = 3 (or 7 starting in 2010) for FQHCs

Description

Calculation of the standardized amount begins with the actual payment amount on the claim and is then adjusted to remove differences in wages using the applicable wage index.

Formula

$$\text{Standardized Allowed} = \frac{\text{Actual Payment} + \text{Coinsurance} + \text{Deductible}}{\left(\text{OPPS Labor Share} \cdot \text{Wage Index}\right) + \left(1 - \text{OPPS Labor Share}\right)}$$

Sources

- Actual payment amount is the sum of REV_CNTR_PRVDR_PMT_AMT, REV_CNTR_BENE_PMT_AMT, and any third party primary payer amounts on the claim.

- OPPS Labor Share is taken from the relevant year's regulation.

- Wage index is determined based on PROVIDER_ID. The CBSA of the provider is taken from the CMS provider of services (POS) provider database, and the associated wage index is used from the OPPS wage index crosswalk on the CMS website.

  o For RHCs, if the CBSA of a provider cannot be determined, the state rural wage index is used.

  o For FQHCs, if the CBSA of a provider cannot be determined, a wage index of 1.0 is used.

- Coinsurance is REV_CNTR_WAGE_ADJSTD_COINS_AMT.

- Deductible is equal to the sum of REV_CNTR_CASH_DDCTBL_AMT and REV_CNTR_BLOOD_DDCTBL_AMT.

12 COMPREHENSIVE OUTPATIENT REHABILITATION FACILITY (CORF) AND OUTPATIENT REHABILITATION FACILITY (ORF)

Claims included

NCH_CLM_TYPE_CD = 40 and CLM_FAC_TYPE_CD = 7, in addition to one of the following:

- CLM_SRVC_CLSFCTN_TYPE_CD = 4 for ORF
- CLM_SRVC_CLSFCTN_TYPE_CD = 5 for CORF

Description

While CORFs and ORFs use institutional claims, CORF and ORF services are paid under the physician fee schedule, so the standardization methodology is the same in theory as that for physician services. Differences result from the use of institutional rather than non-institutional claims (e.g., revenue center lines on institutional claims are conceptually equivalent to line items on non-institutional claims, but have different names) and where there may be policy differences in adjustments made for institutional claims versus non-institutional claims (e.g., the adjustment effective beginning 2011 for multiple therapy services).

13 RENAL DIALYSIS FACILITY

Claims included

NCH_CLM_TYPE_CD = 40 and CLM_FAC_TYPE_CD = 7 and
CLM_SRVC_CLSFCTN_TYPE_CD = 2

Description

For 2007 to 2010, the standardization methodology is as follows:

- For dialysis revenue center codes, the non-training portion of the claim allowed amount is adjusted to remove differences in wages using the applicable wage index.

- For revenue center lines that include drugs, the line allowed amount is used.

- For revenue center lines for lab services, follow the lab rules described in Section 25 "Clinical Lab Services".

For 2011 and later, our methodology assumes payment under the new end stage renal disease (ESRD) PPS, where:

- Dialysis revenue center lines are standardized according to the pricing logic in the ESRD PPS Pricer software, excluding geographic factors.

- Payment for services subject to ESRD PPS consolidated billing are bundled with the payment for the dialysis lines.

- Services excluded from ESRD PPS bundling are standardized according to the appropriate fee schedule, if available; otherwise payment is taken as is.

- Effective January 1, 2017, dialysis services furnished by ESRD facilities to Medicare beneficiaries with acute kidney injury (AKI) are also included in this category for standardization.[13]

- Effective January 1, 2018, the ESRD base rate includes the transitional drug add-on payment adjustment (TDAPA) for qualifying drug products. As of CY2018, this add-on applies to injectable versions of phosphate binder and calcimimetics.[14]

Formula

For 2007 to 2010:

For dialysis revenue center lines:

$$\text{Standardized Allowed} = \frac{(\text{Actual Payment} + \text{Coinsurance} + \text{Deductible}) - \text{Training Payment}}{(\text{OPD Labor Share} \cdot \text{Wage Index}) + (1 - \text{OPD Labor Share})} + \text{Training Payment}$$

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[13] Based on CR9598, ESRD facilities may furnish dialysis to Medicare patients with AKI starting January 1, 2017. For more information on this policy, please refer to CR9598.

[14] Effective January 1, 2018, the ESRD base rate will include a TDAPA add-on for eligible injectable drugs. For more information on the ESRD TDAPA policy, please refer to CR10065.

For drug revenue center lines:

$$\text{Standardized Allowed} = \text{Actual Payment} + \text{Coinsurance} + \text{Deductible}$$

For clinical lab revenue center lines, the standardization methodology is the same conceptually as that for clinical lab services; differences result from the use of institutional rather than non-institutional claims (e.g., revenue center lines on institutional claims are equivalent to line items on non-institutional claims, but have different names).

For 2011 and Later:

$$\text{Standardized Allowed} =$$

$$\begin{pmatrix} \text{Standardized ESRD PPS Amount} + \text{Line Outlier Amount} \\ + \text{TDAPA Add-on per Treatment} \end{pmatrix} - \frac{\text{ESRD Network Reduction}}{\text{Paid Dialysis Lines}}$$

For CAPD and CCPD home dialysis services paid under ESRD PPS consolidated billing:

$$\text{Standardized ESRD PPS Amount} =$$

$$\text{Base Rate} \cdot \text{Age Factor} \cdot \text{BSA Factor} \cdot \text{BMI Factor} \cdot \text{Comorbidity Factor} \cdot \text{Onset Factor} \cdot \frac{3}{7}$$

For other dialysis services and lines paid under ESRD PPS consolidated billing:

$$\text{Standardized ESRD PPS Amount} =$$

$$\text{Base Rate} \cdot \text{Age Factor} \cdot \text{BSA Factor} \cdot \text{BMI Factor} \cdot \text{Comorbidity Factor} \cdot \text{Onset Factor}$$
$$+ \text{Training Add-on}$$

For line items that are allowed to be paid outside the PPS bundle, such as vaccinations, the payment is taken as is from the claim.

Sources

- Prior to 2011, the following revenue center codes, found in REV_CNTR, indicate dialysis: 821, 831, 841, 851, 880, 881. After 2011, 880 is no longer part of this list.

- Training revenue center lines may be subject to additional training payment. Effective July 1, 2017, retraining can be identified separately from initial training by the presence of condition code 87. Retraining is paid and standardized the same way as initial training when covered.[15]

- Prior to 2011, a training payment was applicable in the presence of specific revenue center dialysis codes and condition code 73 on the revenue center line. The training payment varied by dialysis code as indicated below:

  o $20 for 821, 831, 851

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[15] Effective July 1, 2017, CR9609 implements condition code 87 to indicate that an ESRD beneficiary is receiving retraining treatment. For more information on this policy, please refer to CR9609.

- o $12 for 841

- If the Medicare Allowable Payment (MAP) per treatment for ESRD outlier services exceeds the outlier threshold, a line outlier payment is calculated as the difference between the MAP amount and the threshold, multiplied by the ESRD loss share ratio. The MAP per treatment is calculated using CLM_VAL_AMT on the claim divided by the number of dialysis sessions when CLM_VAL_CD equals 79.

- Effective January 1, 2018, the TDAPA add-on for eligible injectable drugs is included in the ESRD base rate. This add-on is taken from CLM_VAL_AMT on the claim when CLM_VAL_CD equals Q8.

- The relevant wage index is determined based on PROVIDER_ID. The CBSA of the provider is listed in the CASPER database and is used to determine the associated wage index from the ESRD wage index crosswalk contained in the ESRD Pricer. If the CBSA of a provider cannot be determined, a wage index of 1.0 is used.

- Coinsurance is REV_CNTR_WAGE_ADJSTD_COINS_AMT.

- Deductible is the sum of REV_CNTR_CASH_DDCTBL_AMT and REV_CNTR_BLOOD_DDCTBL_AMT.

- Actual Payment is the sum of REV_CENTR_PRVDR_PMT_AMT, REV_CENTR_BENE_PMT_AMT, and any third party primary payer amount on the claim line.

14 HOSPITAL OUTPATIENT PROSPECTIVE PAYMENT SYSTEM (OPPS)

Claims included

NCH_CLM_TYPE_CD = 40 in addition to one of the following:

- CLM_FAC_TYPE_CD = 1 and CLM_SRVC_CLSFCTN_TYPE_CD = 3
- CLM_FAC_TYPE_CD = 2 and CLM_SRVC_CLSFCTN_TYPE_CD = 2
- CLM_FAC_TYPE_CD = 2 and CLM_SRVC_CLSFCTN_TYPE_CD = 3
- CLM_FAC_TYPE_CD = 3 and CLM_SRVC_CLSFCTN_TYPE_CD = 4
- Substr(PROVIDER_ID,3,2) = 13 for CAHs

In general – The standardization method for hospital outpatient claims is the same for CAHs, Maryland hospitals, and non-Maryland hospitals. Although CAHs and Maryland hospitals are not paid under the OPPS system, their claims are standardized the same way as other hospitals to allow for uniform national standardization and facilitate national resource use comparisons.

The standardized amount for a particular revenue center line is calculated depending on whether the associated service is paid under the OPPS or another fee schedule, as indicated by the revenue status indicator.

Any outlier payments on the claim are adjusted to remove differences in labor costs using the OPPS wage index.

Specifically

- Services with status indicators paid under the OPPS are standardized according to the associated ambulatory payment classification (APC) rate. If an APC rate is not available, actual payment is adjusted to remove differences in labor costs using the OPPS wage index.

- CAH and Maryland claims do not have status indicators that indicate OPPS payment. For these claim lines, status indicators are determined from the HCPCS to APC mapping file. The packaging and discounting policies from the OPPS are also applied to CAH and Maryland claims.

14.1 OPPS Services with an Ambulatory Payment Classification (APC) Rate

Description

- OPPS payable services are revenue center lines where the first position of the revenue center status indicator on the claim is: F, G, H, J, K, L, P, Q, R, S, T, U, V, or X. These services are standardized according to the APC reported on the claim.
  - o The APC is linked to the quarterly OPPS fee schedule (Addendum A) to obtain the APC fee schedule amount.

- Revenue center lines with status indicator N are packaged lines which receive $0 in actual payment. In these cases, the standardized payment is also set to $0.

- For revenue center lines with an APC and a T status indicator or modifier codes 52 or 73 indicating reduced[16] or discontinued[17] procedures, a discounting factor is applied based on the discount indicator code.

- Prior to 2014, claims with modifier FB receive payment reduced by the full device offset amount, while those with modifier FC are reduced by half the offset amount. After 2014, value code FD is adopted instead to identify claim level device credit amount. Value code FD only applies to device intensive procedures that exceed the significant device offset threshold.

- Effective in 2017, all non-excepted services furnished in non-excepted off-campus Provider-Based Departments (PBDs) of hospitals (modifier PN) are paid at a reduced OPPS APC payment rate comparable to similar services furnished in a physician clinic under the MPFS. Starting in 2020, the payment reduction policy expands further to clinic visits (HCPCS G0463) furnished in excepted PBDs (modifier PO).[18]

Formulas

For revenue center lines with an APC of 310, 344, 366, 369, 31, 368, 317, 272, 263, 261, 624, or 260; an X payment status indicator; and units greater than one:

$$\text{Standardized Allowed} = \text{Actual Payment} + \text{Coinsurance} + \text{Deductible}$$

For all other revenue center lines with an APC that can be linked to the OPPS fee schedule, generally:

$$\text{Standardized Allowed} = \big((\text{APC Fee Schedule Amount} - \text{Device Credit, If Applicable})\, x\, \text{Units}\big)$$

If the payment status indicator is T or the modifier is equal to 52 or 73:

$$\text{Standardized Allowed} = \big((\text{APC Fee Schedule Amount} - \text{Device Credit, If Applicable})\, x\, \text{Units}\big)$$
$$x\, \text{Discount Factor}$$

If the modifier equals to PN or modifier equal to PO and HCPCS code is G0463, a reduced APC fee schedule amount (comparable to the corresponding MPFS payment) is used

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[16] Procedures for which anesthesia is not planned that are discontinued after the patient is prepared and taken to the room where the procedure is to be performed.

[17] Procedures for which anesthesia is planned that are discontinued after the patient is prepared and taken to the room where the procedure is to be performed before they receive anesthesia.

[18] Payment reduction for clinic visits furnished in excepted PBDs does not apply to CY2019 claims, effective November 4, 2019. CY2019 claims affected by this payment reduction will be automatically reprocessed to reverse this reduction. The payment reduction does apply to claims starting in CY2020. For further information, please refer to this December 2019 Medicare Learning Network (MLN) report.

Sources

- The second through fifth characters of REV_CNTR_APC_HIPPS_CD determine the APC.

- Revenue status indicators are REV_CNTR_STUS_IND_CD.

- The discount factor is calculated based on DSCNTIND.

- Units are represented in REV_CNTR_UNIT_CNT.

- Prior to 2014, the device reduction is equal to the full offset amount in the presence of modifier code FB and half the offset amount in the presence of modifier code FC. After 2014, the device reduction is either the full offset amount of the device or the device credit received from value code FD depending on what is reported. The reduction is split among eligible lines according to their share of unadjusted APC payment.

- In 2017, non-excepted services furnished in non-excepted PBDs are paid at 50% of the OPPS APC payment rate. Since 2018, the payment reduction has been at 40%. Beginning in 2020, clinic visits furnished in excepted PBDs are paid at 40% of the OPPS APC payment rate.

14.2   Other OPPS Services

Description

For OPPS services with no APC reported on the claim or with an APC that cannot be linked to the OPPS fee schedule, the standardized amount is the same as the actual payment amount on the line, adjusted to remove differences in area wages.

Formula

$$\text{Standardized Allowed} = \frac{\text{Actual Payment} + \text{Coinsurance} + \text{Deductible}}{\left(\text{OPPS Labor Share} \cdot \text{Wage Index}\right) + \left(1 - \text{OPPS Labor Share}\right)}$$

Sources

- Actual payment amount is the sum of REV_CNTR_PRVDR_PMT_AMT, REV_CNTR_BENE_PMT_AMT, and any third party primary payer amount on the claim.

- Coinsurance is REV_CNTR_WAGE_ADJSTD_COINS_AMT.

- Deductible is the sum of REV_CNTR_CASH_DDCTBL_AMT and REV_CNTR_BLOOD_DDCTBL_AMT.

- The wage index is determined by referencing the OPPS wage index from the relevant year's regulation for the provider ID on the claim (PROVIDER_ID).

- The labor share is taken from the relevant year's regulation, although it has remained a constant value of 0.6 extending back to 2006.

- Revenue center status indicators are REV_CNTR_STUS_IND_CD.

14.3 Other Fee Schedule Services

Description

Revenue center lines with revenue status indicator A are paid under a fee schedule other than the OPPS fee schedule. In these cases, the HCPCS on the revenue center line is matched to the various Part B fee schedules in this order: lab fee schedule, physician fee schedule, ambulance fee schedule, and Durable Medical Equipment, Prosthetics/Orthotics, and Supplies (DMEPOS) fee schedules. The line is then standardized in accordance with the methodology for the matching fee schedule.

Please note that differences may result from the use of institutional rather than non-institutional claims (e.g., revenue center lines on institutional claims are conceptually equivalent to line items on non-institutional claims, but have different names) and where there may be policy differences in adjustments made for institutional claims vs. non-institutional claims (e.g., an adjustment effective beginning 2011 for multiple therapy services). If the HCPCS cannot be matched, the standardized amount is set equal to the actual amount paid plus the deductible and coinsurance on the revenue center line.

Sources

- The relevant fee schedule is determined by the procedure on the revenue center line (HCPCS_CD) and, in the case of lab and physician services, any modifiers (MDFR_CD).

14.4 Outlier Payments

Description

The outlier amount applies at a claim level rather than the revenue center line level. Any outlier amounts are adjusted to remove the effect of the wage index.

Formula

$$\text{Standardized Allowed} = \frac{\text{Outlier Payment}}{\left(\text{OPPS Labor Share} \bullet \text{Wage Index}\right) + \left(1 - \text{OPPS Labor Share}\right)}$$

Sources

- Outlier payment is taken from CLM_VAL_AMT on the claim when CLM_VAL_CD equals 17.

- The wage index is determined by referencing the OPPS wage index from the relevant year's regulation for the provider ID on the claim (PROVIDER_ID).

- The labor share is taken from the relevant year's regulation, although it has remained a constant value of 0.6 extending back to 2006.

15 COMMUNITY MENTAL HEALTH CENTERS (CMHC)

Claims included

NCH_CLM_TYPE_CD = 40 and CLM_FAC_TYPE_CD = 7 and
CLM_SRVC_CLSFCTN_TYPE_CD = 6

Description

CMHCs are paid for their services under the OPPS fee schedule, so the standardization
methodology is the same as for hospital outpatient services, described above.

16 SERVICES PROVIDED BY HOSPITALS TO INPATIENTS WITHOUT PART A COVERAGE OR WITH EXHAUSTED PART A COVERAGE

Claims included

NCH_CLM_TYPE_CD = 40 and CLM_FAC_TYPE_CD = 1 and
CLM_SRVC_CLSFCTN_TYPE_CD = 2

Description

Standardization follows the rule described above for other OPPS services.

17 HOSPITAL LAB TESTS NOT PAID UNDER OPPS

Claims included

NCH_CLM_TYPE_CD = 40 and CLM_FAC_TYPE_CD = 1 in addition to one of the following:

- CLM_SRVC_CLSFCTN_TYPE_CD = 4 for non-patient lab tests
- CLM_SRVC_CLSFCTN_TYPE_CD = 3 with modifier code L1 for lab tests clinically unrelated to other outpatient services

Description

The HCPCS on the revenue center line should first be matched to the lab fee schedule. For matching lines, standardization is conducted in accordance with the methodology used for clinical laboratory services. Please note that differences result from using institutional rather than non-institutional claims (e.g., revenue center lines on institutional claims are conceptually equivalent to line items on non-institutional claims, but have different names). For all other revenue center lines, the standardized allowed is equal to the actual payment and any coinsurance and deductible for the revenue center line.

18 OTHER OUTPATIENT SERVICES

Claims included

NCH_CLM_TYPE_CD = 40 and not included in other claim type 40 sections.

Description

The standardized amount equals the actual claim line payment amount plus any coinsurance and deductible for the revenue center line.

Formula

$$\text{Standardized Allowed} = \text{Actual Payment} + \text{Coinsurance} + \text{Deductible}$$

Sources

- Actual payment amount is the sum of REV_CNTR_PRVDR_PMT_AMT, REV_CNTR_BENE_PMT_AMT, and any third party primary payer amount on the claim.

- Coinsurance is REV_CNTR_WAGE_ADJSTD_COINS_AMT.

- Deductible is the sum of REV_CNTR_CASH_DDCTBL_AMT and REV_CNTR_BLOOD_DDCTBL_AMT.

19 PHYSICIAN SERVICES

Claims included

All Part B non-institutional claim lines that have HCPCS_CD listed in the appropriate fee schedule (described below).

In general – standardization method for physician services depends on whether the claim line is for anesthesia or for other physician services.

Specifically

- Anesthesia claim lines are identified with a HCPCS_CD listed on the anesthesia base unit schedule published on the CMS website.

- Physician claim lines are identified by HCPCS_CD listed on the Medicare Physician Fee Schedule (MPFS) with positive relative value unit (RVU) amounts.

19.1 Anesthesia Services

Description

- The standardized amount is calculated from the national anesthesia conversion factor multiplied by the sum of the relevant base units and the additional 15-minute time units indicated on the claim. In the presence of modifier code AD, base units are limited to a maximum of three.

- Medical direction for anesthesia services receives a 50 percent payment reduction relative to the amount for the service performed by the physician alone.

Formula

$$\text{Standardized Allowed} = \text{Conversion Factor} \cdot (\text{Base Units} + \text{Time Units})$$
$$\cdot \text{Reduction Factor, If Applicable}$$

Sources

- The national anesthesia conversion factor is taken from the relevant year's regulation.

- Applicable base units are taken from the CMS anesthesiologists center table for the relevant year.

- The anesthesia time unit is determined by the value of CARR_LINE_MTUS_CNT when the service indicator code CARR_LINE_MTUS_IND_CD equals two. For claims processed before July 2009, the time units are divided by ten to account for one implied decimal point.

- A 50 percent reduction factor applies for medical direction of anesthesia services if modifier code QK, QX, or QY are present.

19.2 Other Physician Services

Description

- In general, the standardized amount is built up from the geographic practice cost index (GPCI)-adjusted sum of work RVUs, practice expense RVUs, and malpractice RVUs multiplied by the PFS conversion factor.

- Some HCPCS are subject to special rules as indicated by additional variables on the physician fee schedule file:

  o The bilateral surgery variable indicates whether a surgery HCPCS is subject to reduction when performed bilaterally.

    – For a single HCPCS line with a bilateral surgery value of 1 in the presence of modifier 50 or both modifier codes RT and LT, the standardized amount is multiplied by 1.5.

    – For two lines with the same HCPCS and with a bilateral surgery value of 1, in the presence of RT and LT modifiers, the standardized amount for the line with lower actual payment is multiplied by 0.5 while the standardized amount for the line with higher actual payment is left unchanged.

  o The multiple procedures variable indicates whether a code is subject to the reduction for multiple procedures or therapy services.

    – HCPCS with a multiple procedure value of 2 or 3 are subject to reduction for multiple procedures on the same day. In the case of multiple claim lines with these HCPCS on the same day for the same beneficiary, the line with the highest PFS rate is unaffected, while the standardized amount for all other line items is multiplied by 0.5. This reduction is also applied for these HCPCS if modifier 51 is present.

    – HCPCS with a multiple procedure value of 3, in combination with the endo base variable, creates 35 "families" of procedure codes that incorporate the same base endoscopy. In the case of multiple claim lines for procedures in the same family on the same day for the same beneficiary, the line with the highest PFS rate is unaffected, while the standardized amount for all other line items is reduced by the standardized amount for the base endoscopy procedure.

    – HCPCS with a multiple procedure value of 4, in combination with the imaging family indicator variable creates 11 "families" of imaging codes prior to 2011 and only one family after 2011. In the case of multiple claims lines for imaging in the same family on the same day for the same beneficiary, the line with the highest technical component PFS rate is unaffected, while the technical component of all other line items is multiplied by 0.5 (and for services furnished before July 1, 2010, 0.75). In making this determination for a global code (no technical component (TC) modifier), the adjustment would be made to the TC portion of the global code. After January 1, 2012, the same reduction method is applied to the professional components. All professional components except the highest

paid are multiplied by 0.75 for services furnished prior to January 1, 2017, and multiplied by 0.95 for services furnished on or after January 1, 2017.[19]

- Starting in 2011, HCPCS with a multiple procedure value of 5 identify therapy services subject to reduction of their practice expense RVU when performed multiple times on the same day. Beginning April 1, 2013, in the case of multiple claim lines for these HCPCS on the same day for the same beneficiary, the line with the highest practice expense RVU is unaffected while the practice expense RVU for all other lines is multiplied by 0.5. Prior to April 1, 2013, the reduction factor to the practice expense was 0.75 for institutional settings and 0.8 for non-institutional settings.

- Starting in 2013, HCPCS with a multiple procedure value of 6 identify diagnostic cardiovascular procedures subject to reduction of their technical component when performed multiple times on the same day. In the case of multiple claim lines for these HCPCS on the same day for the same beneficiary with the same physician, the line with the highest PFS technical component rate is unaffected while the technical component for all other lines is multiplied by 0.75.

- Starting in 2013, HCPCS with a multiple procedure value of 7 identify diagnostic ophthalmology services subject to reduction of their technical component when performed multiple times on the same day. In the case of multiple claim lines for these HCPCS on the same day for the same beneficiary with the same physician, the line with the highest PFS technical component rate is unaffected while the technical component for all other lines is multiplied by 0.8.

o The co-surgery variable indicates whether a code is subject to the reduction for co-surgery. For codes with a value of 1 or 2, in the presence of modifier 62, standardized amounts are multiplied by 0.625.

o The assistant at surgery variable indicates whether a code is subject to the reduction for assistants at surgery. For codes with a value of 0 or 2, in the presence of a type of service code 8 (assistant as surgery), payments are multiplied by 0.16.

o If there is a C in the status code variable, the service is priced by carriers, indicating no national fee schedule values. For these services and other services without RVU values, the standardized allowed is equal to the line allowed amount as described in Section 27 on all other carrier claims section.

- The standardized amount is adjusted in the case of physicians sharing a global fee based on the pre-operative, intra-operative, and post-operative shares indicated on the PFS.

o Lines with modifier 54 receive the pre-operative and intra-operative share.

o Lines with modifier 55 receive the post-operative share.

o Lines with modifier 56 receive the pre-operative share.

o Lines with modifier 78 receive the intra-operative share.

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[19] Effective January 1, 2017, all professional components except the highest paid receive a payment at 95 percent of the Medicare Physician Fee Schedule, instead of the previous 75 percent. For more information on this policy change, please refer to CR9647.

- The standardized amount is adjusted in the case of services provided by non-physician specialties. Standardized amounts for services provided by physician assistants (PA), nurse practitioners (NP), certified clinical nurse specialists (CNS), and registered dietitian/nutritionists providing medical nutrition therapy are multiplied by 0.85. Standardized amounts for services provided by clinical social workers (CSW) are multiplied by 0.75. Standardized amounts for services provided by certified nurse midwives (CNM) prior to 2011 are multiplied by 0.65.

- For claims from 2007 or 2008, the work RVUs are multiplied by a budget neutrality factor of 0.8994 or 0.8806, respectively. Other years have no budget neutrality adjustment.

Formula

After accounting for the adjustments mentioned above, the standardized allowed amount is calculated as:

$$\text{Standardized Allowed} = \text{Conversion Factor} \cdot \left(\text{Work RVU} + \text{Practice Expense RVU} + \text{Malpractice RVU}\right) \cdot \text{Units}$$

Sources

- The PFS conversion factor is taken from the relevant quarter's physician fee schedule file.

- In general, RVUs are taken from the physician fee schedule file based on the combination of claim line HCPCS and modifier. PFS modifiers include:

  - 53 - Discontinued Procedure

  - 26 - Professional Component

  - TC - Technical Component

- For the TC of imaging services (including the TC part of a global service), the RVUs used are the lower of those in the physician fee schedule or OPPS fee schedule "caps." These OPPS RVUs are in columns of the physician fee schedule file ("Non-facility practice expense (PE) used for OPPS payment amount," "Facility PE used for OPPS payment amount," and "MP used for OPPS payment amount").

- The facility value of the practice expense RVUs is used if LINE_PLACE_OF_SRVC_CD equals:

  - 19 - Outpatient Hospital (Off-campus)

  - 21 - Inpatient Hospital

  - 22 - Outpatient Hospital

  - 23 - Emergency Room - Hospital

  - 24 - Ambulatory Surgical Center

  - 26 - Military Treatment Facility

- o 31 - Skilled Nursing Facility
- o 34 - Hospice
- o 41 - Ambulance - Land
- o 42 - Ambulance - Air or Water
- o 51 - Inpatient Psychiatric Facility
- o 52 - Psychiatric Facility - Partial Hospitalization
- o 53 - Community Mental Health Center
- o 56 - Psychiatric Residential Treatment Center
- o 61 - Comprehensive Inpatient Rehabilitation Facility
- For PAs, PRVDR_SPCLTY_CD equals 97.
- For NPs, PRVDR_SPCLTY_CD equals 50.
- For CNSs, PRVDR_SPCLTY_CD equals 89.
- For Registered Dietitian/Nutritionists, PRVDR_SPCLTY_CD equals 71.
- For CNMs, PRVDR_SPCLTY_CD equals 42.
- For CSWs, PRVDR_SPCLTY_CD equals 80.
- Units are found in the SRVC_CNT.
- Applicable deductible is LINE_BENE_PTB_DDCTBL_AMT.
- Coinsurance amount on the claim is LINE_COINSRNC_AMT.
- Allowed charge indicated on the claim is LINE_ALOWD_CHRG_AMT.

20 AMBULATORY SURGICAL CENTER (ASC)

Claims included

All Part B non-institutional claims with CARR_LINE_TYPE_SRVC_CD = F, or
LINE_PLC_SRVC_CD = 24 and LINE_HCFA_PRVDR_SPCLTY_CD = 49.

Description

- The standardized amount is generally equal to ASC fee schedule amount relevant to the service provided.

- Multiple procedures, indicated by the MULTIPLE_PROCEDURE discount variable, are subject to payment adjustment:

  o For bilateral services with modifier 50 or LT or RT, the adjustment factor equals one but units on the claim are doubled.

  o For multiple surgeries with modifier 51, the adjustment factor equals to 0.5.

  o For all other multiple procedure services on the same day for the same beneficiary, the service with the highest ASC payment rate is paid at 100 percent. All other procedures after the first has an adjustment factor equals to 0.5.

- Reduced services, indicated by modifier 52, or procedures discontinued prior to anesthesia, indicated by modifier 73, will have adjustment factor equals to 0.5.

- Claims with modifier FB receive a payment reduction worth the full device offset amount while those with modifier FC are reduced by half the offset amount.

Formula

$$\text{Standardized Allowed} = \big(\text{ASC Fee Schedule Amount} - \text{Device Reduction, If Applicable}\big)$$
$$\cdot \text{Units} \cdot \text{Adjustment Factor, If Applicable}$$

Sources

- The fee schedule amount is determined by the procedure on the claim line (HCPCS_CD).

- Device reduction amounts are taken from the CMS website ASC section.

- Units are from LINE_SRVC_CNT.

21 DURABLE MEDICAL EQUIPMENT (DME)

Claims included

All Part B non-institutional claims with:

- HCPCS_CD on the DMEPOS fee schedule and
- CATG column from the DMEPOS fee schedule not equal to PO or TS (these are handled in the Prosthetics, Orthotics, and Therapeutic Shoes section).

In general – the standardization method for DME depends on the modifier used along with the HCPCS on the claim line.

Specifically

- If modifiers MS, RP, or RB are used on the claim, the standardized amount is the actual line allowed amount for the claim line. In all other cases, the methodology described below is used.

Description

The standardized amount is equal to the ceiling of the DME fee schedule relevant to the service provided as indicated by the combination of HCPCS code and modifier.

Formula

Standardized Allowed = DME Fee Schedule Ceiling (or median rate across continental states, if no ceiling) • Adjustment Factor, If Applicable • Units, If Applicable

Table 1. Adjustment Factors for DME

Time Period Applicable	Type of Products	Modifier Required	Adjustment Factor
Prior to 2011	Power wheel-chairs	NU (purchase option)	10
		UE (used purchase)	7.5
	All other DME	KJ with RR	0.75
On or after January 1, 2011	Power wheel-chairs	NU (purchase option)	6.67
		UE (used purchase)	5
		KJ with RR	0.4
	All other DME	KJ with RR	0.75

Sources

- The ceiling value is determined by a combination of the HCPCs and modifier on the claim line.

- HCPCS comes from HCPCS_CD.

- Modifiers that affect payment include AU, AV, AW, KF, KL, KM, KN, NU, RR, UE, KC, KE, KU, or QF.

  o Modifiers KH, KI, KJ, or MS should be treated as RR.

  o Any other modifiers found on the claims should be disregarded.

  o When the FS shows one code as first modifier and another as the second modifier, claims should be treated the same regardless of the order of the modifiers (e.g., for E0748, a claim with MDFR_CD1 = KF and MDFR_CD2 = NU is treated the same as if MDFR_CD1 = NU and MDFR_CD2 = KF).

- Units are from LINE_SRVC_CNT.

- The fee schedule used for lines with service dates (LINE_1ST_EXPNS_DT) between July 1, 2016, and December 31, 2016, depends on the process date for the claim (NCH_DAILY_PROC_DT). If the process date is before July 3, 2017, then a fee schedule reflecting 100 percent competitive bidding adjusted rates was used for standardization. For claims processed on or after July 3, 2017, the fee schedule used for standardization reflects a 50/50 blend of competitive bidding adjusted and unadjusted fee schedule rates.[20]

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[20] This methodology is based on the implementation of CR 9968 which establishes a 50/50 blend of competitive bidding adjusted and unadjusted fee schedule rates for claims in non-competitive bid areas with dates of service between July 1, 2016, and December 31, 2016. For more information, please refer to CR9968.

22 PROSTHETICS, ORTHOTICS, AND THERAPEUTIC SHOES

Claims included

All Part B non-institutional claims with the following:

- HCPCS_CD on the DMEPOS fee schedule

- CATG column from the DMEPOS fee schedule equals PO or TS

Description

The standardized amount is equal to 120 percent of the DME fee schedule ceiling relevant to the service provided as indicated by the combination of procedure code and modifiers.

Formula

Standardized Allowed= 120 % DME Fee Schedule Ceiling
(or Median Rate across Continental States, If No Ceiling) • Units, If Applicable

Sources

- The ceiling value is determined by the combination of the HCPCs and modifier on the claim line.

- HCPCS comes from HCPCS_CD.

- Modifiers that affect payment include AU, AV, AW, KF, KL, KM, KN, NU, RR, UE, KC, KE, KU, or QF.

- Units are from LINE_SRVC_CNT.

- The fee schedule used for lines with service dates (LINE_1ST_EXPNS_DT) between July 1, 2016, and December 31, 2016, depends on the process date for the claim (NCH_DAILY_PROC_DT). If the process date is before July 3, 2017, then a fee schedule reflecting 100 percent competitive bidding adjusted rates was used for standardization. For claims processed on or after July 3, 2017, the fee schedule used for standardization reflects a 50/50 blend of competitive bidding adjusted and unadjusted fee schedule rates.[21]

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[21] This methodology is based on the implementation of CR 9968 which establishes a 50/50 blend of competitive bidding adjusted and unadjusted fee schedule rates for claims in non-competitive bid areas with dates of service between July 1, 2016, and December 31, 2016. For more information, please refer to CR9968.

23 PARENTERAL AND ENTERAL NUTRITION (PEN)

Claims included

All Part B non-institutional claims with HCPCS_CD listed in the national PEN fee schedule.

Description

The standardized amount is calculated based on the PEN fee schedule median payment rate among continental states.

Formula

$$\text{Standardized Allowed} = \text{PEN Fee Schedule Median} \bullet \text{Units}$$

Sources

- The PEN fee schedule median is calculated using the relevant year's PEN fee schedule file.

- Units are from LINE_SRVC_CNT.

- The fee schedule used for lines with service dates (LINE_1ST_EXPNS_DT) between July 1, 2016, and December 31, 2016, depends on the process date for the claim (NCH_DAILY_PROC_DT). If the process date is before July 3, 2017, then a fee schedule reflecting 100 percent competitive bidding adjusted rates was used for standardization. For claims processed on or after July 3, 2017, the fee schedule used for standardization reflects a 50/50 blend of competitive bidding adjusted and unadjusted fee schedule rates.[22]

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[22] This methodology is based on the implementation of CR 9968 which establishes a 50/50 blend of competitive bidding adjusted and unadjusted fee schedule rates for claims in non-competitive bid areas with dates of service between July 1, 2016, and December 31, 2016. For more information, please refer to CR9968.

24 PART B DRUGS

Claims included

This category is included in Section 27 "All Other Carrier Claims," which consists of HCPCS_CD not found in any other payment section (such as physician fee schedule, lab, etc.). The payment is taken as is from the claim, since Part B drugs are paid on a uniform national ASP fee schedule.

Description

The standardized amount is equal to the line allowed amount for the claim line.

Formula

$$\text{Standardized Allowed} = \text{Line Allowed Amount}$$

Sources

- Line allowed amount is LINE_ALOWD_CHRG_AMT.

25 CLINICAL LAB SERVICES

Claims included

All Part B non-institutional claims with HCPCS_CD listed on the clinical diagnostic laboratory fee schedule with a positive payment rate.

In general – the standardization method for clinical lab claims depends on whether the claim is for an automated test or test panel.

25.1 Automated Tests and Chemistry Panels

Claims included

Claims with CPT codes: 82040, 82247, 82248, 82310, 82330, 82374, 82435, 82465, 82550, 82565, 82947, 82977, 83615, 84075, 84100, 84132, 84155, 84295, 84450, 84460, 84478, 84520, 84550, 80047, 80048, 80051, 80053, 80061, 80069, or 80076

Description

The standardized amount is equal to the line allowed amount for the claim line.

Formula

$$\text{Standardized Allowed} = \text{Line Allowed Amount}$$

Sources

- Line allowed amount is LINE_ALOWD_CHRG_AMT.

25.2 Other Lab Services

Description

Prior to CY2018, the standardized amount is equal to the clinical lab fee schedule national limit amount multiplied by the number of units.

Starting CY2018, the standardized amount is calculated using the weighted median of the private payor rates rather than national limits.[23]

Formula

Prior to CY2018

$$\text{Standardized Allowed} = \text{Line Allowed Amount}$$

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[23] This methodology is based on the implementation of CR10409 which notes the change in payment policy for CLFS rates from the minimum of three amounts to being based on the weighted private payor rates. For more information, please refer to CR10409.

<u>After CY2018</u>

Standardized Allowed = Weighted Median of Private Payor Rates • Units

Sources

- The fee schedule amount is determined by claim line (HCPCS_CD).

- The national limit amount comes from the applicable year's clinical lab fee schedule.

- Units are from LINE_SRVC_CNT.

26 AMBULANCE

Claims included

All Part B non-institutional claims with an ambulance HCPCS code.

In general – claim lines for mileage and mode of service are both standardized according to a national mean for the HCPCS code.

Description

The standardized amount is equal to the national arithmetic mean of the line allowed amount for the HCPCS code for the prior year.

Formula

$$\text{Standardized Allowed} = \text{National Mean of Allowed Amounts}$$

Sources

- Allowed charge indicated on the claim is LINE_ALOWD_CHRG_AMT.

27 ALL OTHER CARRIER CLAIMS

Claims included

All Part B non-institutional claims not included in any other payment section (e.g., physician fee schedule, lab, etc.). This category consists of Part B drugs and carrier-priced services.

Description

The standardized amount is equal to the line allowed amount for the claim line.

Formula

$$\text{Standardized Allowed} = \text{Line Allowed Amount}$$

Sources

- Line allowed amount is LINE_ALOWD_CHRG_AMT.

APPENDIX A: CHANGES TO CMS'S PRICE STANDARDIZATION METHODOLOGY

The appendix notes the differences between the current price standardization methodology used by the Centers for Medicare and Medicaid Services (CMS) presented in this document and the "CMS Price Standardization" documents posted in previous years. The first section lists the methodological changes made between the 2012 and 2013 version, the second section details the changes between the 2013 and 2014 version, the third section outlines the changes between the 2014 and 2015 version, the fourth section outlines changes between 2015 and 2016, the fifth section outlines changes between 2016 and 2017, and the final section discusses changes made for the current documentation.

A.1   Changes between 2012 and 2013

Methodological changes to the CMS price standardization methodology between the versions posted on January 31, 2012, and on May 16, 2013, appear in the following sections:

1. **Section 3**: Standardization for inpatient CAHs, cancer hospital, and Maryland hospital claims was updated to follow the IPPS methodology. The IPPS standardizes claims using a DRG-specific weight and adjusts for short-stay transfers and post-acute discharges (for certain MS-DRGs) when appropriate. Previously, Maryland claims were standardized by multiplying the actual payment by a hospital-specific IME and DSH factor and adjusting to remove geographic differences by using the hospital wage index. CAH and cancer hospital claims were standardized by adjusting the actual payment to remove geographic differences by using the hospital wage index. This change makes CAHs, cancer hospitals, and Maryland hospitals comparable to IPPS hospitals.

2. **Sections 3-7:** Beginning in 2013, hospital standardized amounts are reduced by any device offset reduction present on the claim. These amounts are found in value code FD.

3. **Section 10.1**: Beginning in 2013, hospice claims for services performed by a physician or nurse practitioner are standardized according to the physician fee schedule instead of actual payment.

4. **Section 14**: Outpatient CAH and Maryland claims standardizations were updated to follow the outpatient prospective payment system (OPPS) methodology. Outpatient claims are standardized differently depending on whether the service is paid 1) on a reasonable-cost or pass-through basis, 2) under the OPPS, or 3) under another fee schedule. Previously, Maryland claims were standardized by multiplying the actual payment by a hospital-specific IME factor and adjusting to remove geographic differences by using the hospital wage index. CAH claims were standardized by adjusting the actual payment to remove geographic differences by using the hospital wage index.

5. **Section 16**: Standardization of services for beneficiaries without Part A or with exhausted Part A coverage and services for "non-patients," no longer differentiates between claims at CAH/Maryland hospitals and other hospitals.

6. **Section 19.2**: Beginning in 2012 the diagnostic imaging reduction is also applied to the professional component (multiplied by 0.75).

7. **Section 20**: Beginning in 2013, ASC fee schedule amounts are reduced by the device offset amount in the presence of modifier codes FB or FC.

8. **Section 25.1**: For all automated lab test and panel test codes, the claim payment is taken as the standardized payment. Previously, only panel codes were standardized in this manner.

9. **Section 26**: Beginning in 2013, ambulance mileage amounts are standardized to the national arithmetic mean of allowed claim lines for all five codes, instead of just the three mileage codes. The codes for helicopter and fixed wing transportation were added to the list in order to price ambulance services similarly regardless of the mode of transportation.

Non-methodological changes were also made. Typographical errors were corrected and acronyms were spelled out throughout this document.

A.2 Changes between 2013 and 2014

Methodological changes to the CMS price standardization methodology presented in this document from the previous "CMS Price Standardization" document posted on May 16, 2013, appear in the following sections:

1. **Section 2:** Statement added explaining that the Medicare payment portion of the standard allowed amount (not the standardized beneficiary deductible or coinsurance) is reduced by two percent by sequestration for claims with through date on or after April 1, 2013.

2. **Section 3:** Children's hospitals are standardized as IPPS and non-IPPS hospitals have an imputed outlier amount calculated.

3. **Section 3:** Formula added for non-IPPS outlier imputation.

4. **Section 13:** For renal dialysis facility payments for 2011 and later, the methodology assumes payment under the new payment system where all drug and lab services previously paid separately are now bundled.

5. **Section 14:** The packaging and discounting policies from the OPPS are also applied to Maryland claims.

6. **Section 19.2:** New multiple procedure discounts added.

Non-methodological changes were also made throughout this document.

A.3 Changes between 2014 and 2015

Methodological changes to the CMS price standardization methodology presented in this document from the previous "CMS Price Standardization" document posted on June 9, 2014, appear in the following sections:

1. **Sections 3-7:** Beginning in 2015, standardized outlier payments are constructed for all claims standardized as IPPS, IRF, LTCH, or IPF because outlier payments as listed on claims can be influenced by special Medicare program adjustments not related to resource use (e.g., IME, DSH). The outlined methodology now indicates that an imputed standardized outlier payment is constructed and added to the standardized allowed amount for all claims standardized as IPPS (including Maryland waiver hospitals, CAHs, cancer, and children's hospitals), IRF, LTCH, or IPF.

2. **Section 3:** Beginning in 2015, standardized new technology payments are constructed for claims standardized using IPPS methodology. New technology amounts listed on claims can include adjustments for a provider's wage index, which should not be included in the final standardized payment.

3. **Section 6.1:** Beginning in 2015, standardized payments for short stays at LTCHs are constructed independent of claim reported payments to eliminate the influence of Medicare payment programs unrelated to resource use. The new standardization approach takes the minimum of three values: (1) facility charges adjusted to remove geographic variation based on wage index and COLA, (2) the base LTC DRG payment adjusted for LOS, or (3) a blend of value two and the base IPPS DRG payment adjusted for LOS.

Non-methodological changes were also made throughout this document to improve readability.

A.4 Changes between 2015 and 2016

Methodological changes to the CMS price standardization methodology presented in this document from the previous "CMS Price Standardization" document posted on May 25, 2015, appear in the following sections:

1. All calculations that use ICD diagnosis and procedure codes have been updated to account for the change to ICD-10 on claims with service through date on or after October 1, 2015.

2. **Sections 3-7**: Beginning in 2016, covered length of stay for inpatient claims is calculated using a combination of cost report days, claim utilization day count, and length of stay.

3. **Section 6.3**: Beginning in 2016, when applicable, standardized payments for LTCH stays account for site-neutral payment policies.

4. **Section 10.4:** Beginning in 2016, standardized payments for hospice claims accounts for the end of life service intensity add-on.

5. **Section 10.3:** Beginning in 2016, standardized payments for hospice claims now account for the two-tier RHC payment rates.

6. **Section 19.2**: PFS reduction for multiple procedure indicators 2 and 3 no longer requires modifier 51 if the conditions for reduction are met. This is because modifier 51 is not required for a reduction to be applied when determining payments.

7. **Section 21**: Beginning in 2016, standardized payments for PEN and oxygen equipment will be calculated based on the median payment rate among continental states based on rates listed in the PEN and DMEPOS fee schedules.

Non-methodological changes were also made throughout this document to improve the specificity of the methodology description.

A.5   Changes between 2016 and 2017

Methodological changes to the CMS price standardization methodology presented in this document from the previous "CMS Price Standardization" document posted on August 24, 2016, appear in the following sections:

1. **Section 10.5**: Starting in 2017, standardized payments for institutional hospice claims include allowed vaccine lines. For additional information on this policy, please refer to CR9052 and CR9876.

2. **Section 13**: Starting in 2017, standardized payments for renal dialysis facilities include claims for renal dialysis services provided to beneficiaries with acute kidney injury (AKI). For additional information on this policy, please refer to CR9598.

3. **Sections 21-23**: The fee schedule applied to standardized payments for DMEPOS and PEN fee schedule items with service dates from July 1, 2016, through December 31, 2016, depends on the process date for the claim. Claims processed prior to July 3, 2017, use a fee schedule based on 100 percent competitive bidding adjusted rates. Claims processed on or after July 3, 2017, use a fee schedule based on a 50/50 blend of competitive bidding adjusted and unadjusted fee schedule rates. This adjustment to the standardization algorithm mirrors claims processing requirements described in CR9968 mandated by Section 16007 of the 21st Century Cures Act.

Non-methodological changes were also made throughout this document to improve the specificity of the methodology description.

A.6   Changes between 2017 and 2018

Methodological changes to the CMS price standardization methodology presented in this document from the previous "CMS Price Standardization" document posted on December 5, 2017, appear in the following sections:

1. **Section 6.1**: Starting in FY2018, standardized payments for LTCH SSO claims, including claims with an LOS below the IPPS threshold, are calculated using the blended IPPS and LTCH DRG payment rate. Also in this section, all LTCH discharges occurring in cost

reporting periods beginning on or after October 1, 2017, should be paid based 100 percent on the site neutral payment rate. For more information, please refer to CR10273.

2. **Section 6.2**: Starting in FY2018, the IPPS comparable amount used in the site-neutral payment calculation is reduced by 4.6%. For more information on this policy change, please refer to CR10547.

3. **Section 10**: Starting in CY2018, standardized payment is calculated using the REV_UNIT variable as oppose to UTIL_DAY for hospice claims.

4. **Section 13**: Starting in CY2018, the ESRD base rate will include a TDAPA add-on for eligible injectable drugs. For more information on the ESRD TDAPA policy, please refer to CR10065.

5. **Section 25**: Starting in CY2018, the standardized amounts for CLFS rates will be based on weighted median private payor rates, rather than on the national limit. For more information, please refer to CR10409.

Non-methodological changes were also made throughout this document to improve the specificity of the methodology description and legibility.

A.7   Changes implemented for FY2019

Methodological changes to the CMS price standardization methodology presented in this document from the previous "CMS Price Standardization" document posted on July 10, 2018, appear in the following sections:

1. **Section 3**: Starting in FY2019, discharges to hospice care qualify as post-acute care transfers and are subject to payment adjustments. For more information, please refer to CR10602.

Non-methodological changes were also made throughout this document to improve the specificity of the methodology description and legibility.

A.8   Changes implemented for CY2019

Methodological changes to the CMS price standardization methodology presented in this document from the previous "CMS Price Standardization" document posted on January 24, 2018, appear in the following sections:

1. **Section 9**: Starting in CY2019, the rural adjustment factor applied to all HH claims are calculated as a weighted average based on add-on rates and HH utilization rates. For more information on the HH rural add-on policy, please refer to CR10992.

2. **Section 15:** Based on CY2017 and CY2019 payment policies, all non-excepted services furnished in non-excepted off-campus hospital PBDs, and clinic visits furnished in excepted PBDs, are standardized according to a reduced APC fee schedule amount. For

more information about the relevant payment policy, please refer to CR9930 and CR11099.

Non-methodological changes were also made throughout this document to improve the specificity of the methodology description and legibility.

A.9   Changes implemented in 2020

Methodological changes to the CMS price standardization methodology presented in this document from the previous "CMS Price Standardization" document posted on April 18, 2019, appear in the following sections:

FY2020 Changes

1. **Section 3.1**: The formula for the New Technology Add-on Payment has been updated to reflect variation in the add-on rate. For more information, please refer to the FY2020 IPPS Final Rule.

2. **Section 8**: Starting in FY2020, SNF claims are now paid and standardized according to the SNF Patient-Driven Payment Model (PDPM). The PDPM replaces the SNF resource utilization group (RUG) system used prior to FY2020, changes the structure of the HIPPS code on claims, alters the payment adjustment for SNF stays where the beneficiary has HIV/AIDS, and adjusts the per diem rate for SNF claims based on a variable per diem (VPD) schedule. For more information, please refer to the FY2020 SNF Final Rule.

3. **Section 14.1**: The payment reduction for clinic visit services furnished in excepted PBDs no longer applies to claims with service dates in CY2019, effective November 4, 2019. For more information, please refer to this December 2019 Medicare Learning Network report.

CY2020 Changes

1. **Section 9**: Starting in CY2020, HH claims are paid under the new HH Patient-Driven Groupings Model (PDGM). Among other changes, the PDGM modifies Home Health Resource Group (HHRG) characteristics, reduces the HH episode window from 60 to 30 days, and begins phase-out of requests for anticipated payment (RAPs). For more information, please see the CY2020 HH Final Rule.

2. **Section 14.1:** The payment reduction for clinic visits services furnished in excepted PBDs applies to OPPS claims with services dates in CY2020, with a payment rate of 40% of the OPPS ambulatory payment classification (APC) rate. For more information, please refer to the CY2020 OPPS Final Rule.

Non-methodological changes were also made throughout this document to improve the specificity of the methodology description.