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Methodology for determining relative weights.

(A) General description.

For hospitals subject to prospective payment for inpatient services, the Ohio department of job and family services, ("ODJFS") will reimburse for inpatient hospital services an amount per discharge in each diagnostic category. The payment is reflective of the relative hospital resources used by each diagnostic category in comparison to the statewide average resource use for an admission. The method for determining the weight of a diagnostic category is based on its average charge compared to an average charge for all discharges. This rule describes the diagnostic categories and the method for determining the relative weights for each category. Special consideration is given to psychiatric diagnostic related groups (DRGs) 425 to 435 and neonatal DRGs 385 to 390 as described in this rule.

(B) Diagnostic related groupings.

- (1) Except as otherwise specified in paragraph (E) of this rule, relative weights are calculated for each classification of inpatient hospital discharge classified by " grouper," a software package distributed by, "3M Health Information Systems," used by medicare during federal fiscal year 1998, and modified as described in this rule. Services are classified into one of the diagnostic categories based on:
 - (a) The "International Classification of Diseases, 9th Revision, Clinical Modification" (ICD-9-CM), principal and secondary diagnoses;
 - (b) The ICD-9-CM surgical procedures provided to the recipient during a hospital stay;
 - (c) The recipient's sex;
 - (d) The recipient's age; and
 - (e) The recipient's discharge status.
- (2) Cases ~~which~~that would be classified in DRG 385 or DRG 456 because of a transfer or death but ~~which~~that involve a length of stay greater than fifteen days are classified in the DRG ~~which~~that is appropriate in accordance with paragraphs (B)(1) to (B)(1)(e) of this rule if the transfer or death is not considered.
- (3) For cases classified into DRG 386, three subgroups are identified and three

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different relative weights are calculated, based upon the ICD-9-CM codes and the level of the neonatal nursery. These levels are those recognized by the Ohio department of health as of March 29, 1987.

- (a) One subgroup and relative weight is created based upon cases ~~that~~which have ICD-9-CM code 765.0 listed as one of its diagnoses.
- (b) For cases ~~that~~which group as a DRG 386, and do not have ICD-9-CM code 765.0, two relative weights are calculated for this subgroup. One relative weight is calculated using data specific to hospitals with a level I or II nursery and a second relative weight is calculated using data specific to hospitals with a level III nursery.
- (4) For cases classified into DRG 387, four subgroups are identified and four different relative weights are calculated, based upon the infant's birthweight and the level of the neonatal nursery. These levels are those identified by the Ohio department of health as of March 29, 1987. These subgroups are described in paragraphs (B)(4)(a) and (B)(4)(b) of this rule.
- (a) For cases ~~that~~which group into DRG 387 and have a birthweight of zero to one thousand seven hundred fifty grams, two subgroups are identified and two relative weights are calculated within each subgroup. One relative weight is calculated using data specific to hospitals with a level I or II nursery and a second relative weight is calculated using data specific to hospitals with a level III nursery.
- (b) For cases ~~that~~which group into DRG 387 and have a birthweight of one thousand seven hundred fifty-one grams and above, two subgroups are identified and two relative weights are calculated within each subgroup. One relative weight is calculated using data specific to hospitals with a level I or II nursery and a second relative weight is calculated using data specific to hospitals with a level III nursery.

(C) Medicaid claim record.

For the purposes of determining the relative weight for each DRG, the sample includes all claims associated with discharges, as described in paragraphs (C)(1) and (C)(2) of this rule.

- (1) Effective for discharges on January 1, 2006 through ~~December 31, 2009~~December 31, 2011; For the purposes of determining the relative weight for each DRG, the sample includes all claims associated with discharges on or after July 1, 2001 through June 30, 2003 and paid by December 31, 2003.

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All claims included in the sample were previously paid and passed through the edits created by ~~the department's~~ ODJFS's prospective payment system. Claims were adjusted as described in paragraphs (C)(3) to (C)(4)(b) of this rule.

- (2) Effective for discharges on or after ~~January 1, 2010~~ January 1, 2012, and every calendar year thereafter, relative weights shall be determined on an annual basis. For the purposes of determining the relative weight for each DRG, the sample includes all claims associated with discharges during the state fiscal year ending in the calendar year preceding the immediate past calendar year prior to January first of the calendar year to which the new relative weights shall apply. All claims included in the sample were previously paid and passed through the edits created by ~~the department's~~ ODJFS's prospective payment system. Claims were adjusted as described in paragraphs (C)(3) to (C)(4)(b) of this rule.
- (3) Claims deleted from computation.
- (a) Claims that were submitted by an out-of-state provider.
- (b) Claims that were submitted by hospitals excluded from the prospective payment system as described in rule 5101:3-2-07.1 of the Administrative Code.
- (c) Claims that were originally grouped into DRG 000, 469 or 470.
- (d) When two or more records existed with the same provider, same recipient number, and exact dates of services, the latest paid claim was retained and the earlier paid claim or claims were deleted.
- (e) If multiple claims for the same provider, same recipient number, and overlapping dates of service occurred, and the date span of the most recently paid claim included the date span of any and all overlap claims, and none of the claims grouped into DRGs 425 to 435, the most recently paid claim was retained and all others were deleted.
- (f) Claims associated with cases that were incorrectly billed to ODJFS, e.g., where third party covered the entire stay.
- (g) Claims that were for an inpatient discharge but had charges of less than one hundred dollars, unless there were ten or fewer claims that grouped into the DRG.

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- (h) Transfer claims unless there were ten or fewer claims that grouped into the DRG.
- (i) Nontransfer claims paid on a per diem basis.
- (j) Claims with net charges equal to zero.

(4) Adjustments to claims.

- (a) Claim-specific adjustments were included if processed by ~~the Ohio department of job and family services~~ ODJFS on or before the last day of the medicaid claim record period as described in paragraphs (C)(1) and (C)(2) of this rule.
- (b) Organ acquisition and transportation costs for heart, liver, and bone marrow transplants were removed from the claim prior to submission to the grouper.

(D) Development of the relative weights.

The relative weights were calculated based upon the total allowable charge for each case for the sample of claims as described in paragraphs (C) to (C)(4)(b) of this rule, subject to the edits as described in paragraphs (D)(3)(a) and (D)(3)(b) of this rule.

(I) Computation of the geometric mean charge for each DRG.

- (a) For DRGs 1 to 385, 391 to 424, and 439 to 503, the geometric mean charge was determined for each of these DRGs.
- (b) For each subgroup in DRG 386 as described in paragraphs (B)(3) to (B)(3)(b) of this rule, and for each subgroup of DRG 387 as described in paragraphs (B)(4) to (B)(4)(b) of this rule, the geometric mean charge was calculated.
- (c) For DRGs 388, 389, and 390, the geometric mean charge was calculated three times to determine a geometric mean charge specific to hospitals with a level I nursery, hospitals with a level II nursery, and hospitals with a level III nursery. For example, three geometric mean charges were calculated for DRG 388, one reflecting data from hospitals with a level I nursery; one reflecting data from hospitals with a level II

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nursery; and one reflecting data from hospitals with a level III nursery.

(d) For DRGs 425 to 435, two geometric mean charges were calculated for each DRG in this category. One geometric mean charge was calculated using the charge for each case within these DRGs from free-standing psychiatric hospitals, and hospitals ~~which~~that have a psychiatric unit distinct part. A "psychiatric unit distinct part" is one ~~which~~that is recognized by medicare as described in rule 5101:3-2-02 of the Administrative Code and where the hospital has notified ~~the department~~ODJFS of medicare's certification. A second geometric mean charge was calculated for each DRG 425 to 435 using data from all other hospitals (hospitals ~~which~~that do not have a recognized psychiatric unit distinct part under medicare). In accordance with rule 5101:3-2-03 of the Administrative Code, ~~the department~~ODJFS does not pay for DRG 436 and DRG 437.

(e) If no cases were grouped by the medicare fiscal year 1998 grouper into any DRG, the geometric mean charge for these DRGs is the geometric mean charge that was used for these DRGs prior to the effective date of this rule.

(2) Calculation of the statewide geometric mean length of stay for each DRG.

(a) For DRGs 1 to 385, 391 to 424, and 439 to 503, the geometric mean length of stay was calculated using all cases within each of these DRGs as determined in paragraph (C) of this rule.

(b) For each subgroup in DRG 386 as described in paragraphs (B)(3) to (B)(3)(b) of this rule and for each subgroup of DRG 387 as described in paragraphs (B)(4) to (B)(4)(b) of this rule, the geometric mean length of stay was calculated.

(c) For DRGs 388, 389, and 390, the geometric mean length of stay was calculated three times to determine geometric mean length of stay specific to hospitals with a level I nursery, hospitals with a level II nursery, and hospitals with a level III nursery. For example, three geometric mean lengths of stay were calculated for DRG 388; one geometric mean length of stay was calculated using all cases in DRG 388 within a hospital ~~which~~that has a level I nursery; one geometric mean length of stay was calculated based on data from hospitals with a level II nursery; and one geometric mean length of stay was calculated based on data from hospitals with a level III nursery.

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- (d) For DRGs 425 to 435, the geometric mean length of stay was calculated two times for each of these DRGs to reflect the difference in the geometric mean length of stay in hospitals with and without psychiatric unit distinct parts. To determine the geometric mean length of stay for cases treated in hospitals with no distinct part psychiatric unit, the geometric mean length of stay was calculated using all cases in these hospitals. To determine the geometric mean length of stay for cases in hospitals with psychiatric unit distinct parts, the geometric mean length of stay was calculated using all cases in these hospitals.
- (e) If no cases were grouped by the medicare fiscal year 1998 grouper into any DRG, the geometric mean length of stay for these DRGs is the geometric mean length of stay that was used for these DRGs prior to the effective date of this rule.

(3) Deletion of outlier cases.

- (a) For each DRG and each subgroup within DRGs 386 to 390 and 425 to 435, a standard deviation for charge and length of stay was calculated based upon the cases used in the calculation of the geometric mean as described in paragraphs (D)(1) to (D)(2)(d) of this rule.
- (b) Cases ~~which~~ that had charges or reflected a length of stay that was two standard deviations above the geometric mean as calculated in paragraphs (D)(1) to (D)(2)(d) of this rule were deleted except for DRGs 385 to 390. For DRGs 385 to 390 cases ~~which~~ that had charges or reflected a length of stay that is one standard deviation above the geometric mean as calculated in paragraphs (D)(1) to (D)(2)(d) of this rule were deleted.
- (4) Recalculation of geometric mean length of stay and geometric mean charge for each DRG and subgroups in DRGs 386 to 390 and 425 to 435 was done excluding outlier cases as described in paragraphs (D)(3)(a) and (D)(3)(b) of this rule.

(5) Computation of the arithmetic mean charge for each DRG.

Computation of the arithmetic mean charge for each DRG and subgroups was calculated using all cases as described in paragraphs (C)(1) to (C)(4)(b) of this rule, excluding outlier cases, as described in paragraphs (D)(3)(a) and (D)(3)(b) of this rule.

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- (a) For DRGs 1 to 385, 391 to 424, and 439 to 503, the arithmetic mean charge was determined for each of these DRGs using the total charge per case for each DRG for all hospitals excluding outlier cases.
- (b) For each subgroup in DRG 386 as described in paragraphs (B)(3) to (B)(3)(b) of this rule, and for each subgroup of DRG 387 as described in paragraphs (B)(4) to (B)(4)(b) of this rule, the arithmetic mean charge was determined excluding outlier cases.
- (c) For DRGs 388, 389, and 390, three separate arithmetic means were calculated for each DRG using data specific to either hospitals with a level I nursery, with a level II nursery, or hospitals with a level III nursery unit. In each instance, the claims used within a DRG, and within a specific level nursery, excluded outlier cases.
- (d) For DRGs 425 to 435, two arithmetic mean charges were calculated for each DRG in this category. One arithmetic mean charge was calculated using the total charge for each case within these DRGs, excluding outlier cases, from hospitals ~~which~~that had a psychiatric unit distinct part. A second arithmetic mean charge was calculated for DRGs 425 to 435 using data, excluding outlier cases, from all other hospitals (hospitals ~~which~~that did not have a recognized psychiatric unit distinct part under medicare).
- (e) If no cases were grouped by the medicare fiscal year 1998 grouper into any DRG, the arithmetic mean charge for these DRGs is the arithmetic mean charge that was used for these DRGs prior to the effective date of this rule.

(6) Calculation of the statewide arithmetic mean charge per discharge.

The statewide arithmetic mean charge per discharge was calculated using the total allowable charge for all cases used in the calculation described in paragraphs (D)(5) to (D)(5)(d) of this rule.

(7) Computation of the relative weight for each DRG and DRG subgroups.

The relative weight of each DRG is a function of the relationship between the arithmetic mean charge per DRG and DRG subgroups and the arithmetic mean charge across all cases. To determine the relative weight, the arithmetic mean charge for each DRG and DRG subgroup calculated as described in paragraphs (D)(5)(a) to (D)(5)(d) of this rule was divided by the statewide

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arithmetic mean charge per discharge as described in paragraph (D)(6) of this rule.

(E) Relative weights for small cell DRGs.

When ten or less claims grouped into a DRG, ~~the department~~ ODJFS established relative weights taking into consideration the weights that previously were used for the DRG, as well as the DRG case mix. When ten or less claims grouped into a new DRG, ~~the department~~ ODJFS used relative weights currently used by medicare.

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