

ACA Health Plan Regulation

HHS Risk Adjustment Model Version 7

Pulse8 Active Intelligence Brief: Expert Insight

March 2021

PULSE8 is privileged to bring you an insightful summarization of the important changes and updates included within the HHS-HCC Version 7 Risk Adjustment model for the ACA 2021 benefit year as outlined in the HHS Notice posting: <https://www.federalregister.gov/documents/2020/05/14/2020-10045/patient-protection-and-affordable-care-act-hhs-notice-of-benefit-and-payment-parameters-for-2021>

Pulse8 has prepared, for the convenience of our customers and industry partners, a summary level interpretation of a complex and detailed amendment to Federal Law. Any questions concerning the meaning, interpretation or effect the changes may or may not have on any given ACA health plan issuer should be directed to legal counsel.

BACKGROUND

The 10 Principles for HCC Design

The HHS-HCC system was built from the blueprints of the previously established CMS-HCC model used for Medicare Advantage risk adjustment. Both programs followed ten basic rules for HCC design and construction:

1. Be clinically meaningful.
2. Predict all allowable medical expenditures, including drug costs.
3. Have adequate sample sizes for accurate estimates of expenditures.
4. Apply hierarchies to characterize illness level within each disease process.
5. Encourage specific coding.
6. Do not reward existence or intensity of diagnoses that are not supported by the medical record.
7. Do not deter providers from recording legitimate additional diagnoses.
8. Be classified consistently across the entire system, transitive.
9. Include all relevant diagnosis codes (exhaustive classification).
10. Exclude discretionary diagnoses.

Source: <https://www.federalregister.gov/d/2020-10045/p-208/>

SUMMARY OF V07 HCC CHANGES

While risk score coefficients vary (sometimes significantly) with each annual re-calculation, the ICD10-to-HCC construct has remained largely intact with minimal adjustments from V01 to V05 (V06 was

designed but never adopted by HHS). Note that HHS introduced the drug prescription NDC based RXC risk score methodology for 2018. However, V07 for 2021 is the first to introduce significant changes to mappings, content, and structure to the ICD10 based HCC policy.

As discussed in the final rule, the V07 HCC changes were derived through the analysis of recent diagnosis codes and the availability of more recent EDGE encounter data. By integrating the principles of HCC design with new data analyses, the V07 model reflects better the current treatment patterns and costs.

Summary of the V05 to V07 Model HCC Changes

- Adult Model: Net change of 16 HCCs; 17 HCCs added, and 1 HCC deleted
- Child Model: Net change of 11 HCCs; 12 HCCs added, and 1 HCC deleted
- Infant Model: Net change of 7; 8 HCCs added, and 1 HCC deleted

Source: <https://www.federalregister.gov/d/2020-10045/p-229/>

PULSE8 INSIGHT: Further breakdown of the V05 to V07 Adult Model HCC Changes.

82 HCCs without change or update.

22 new HCC codes:

- *3 for medical conditions shifted to the Adult Model from the Child Model*
- *5 for medical conditions previously risk adjusted in the Adult Model where V07 changes required the creation of new HCC code*
- *6 for medical conditions previously risk adjusted in the Adult Model where V07 changes required the split of the 3 V05 HCC codes into 2 V07 HCC sub-codes, e.g., 161 to 161.1 and 161.2*
- *8 for medical conditions not previously risk adjusted in any model*

37 HCCs with changes and updates not requiring an HCC code value change:

- *1 HCC dropped with all mapping ICD10 codes transferred to another HCC*
- *6 HCCs with slight adjustments to name and ICD10 mapping*
- *30 HCCs with changes to Hierarchy and/or HCC Group mappings*

*Note that the inclusion of eight new HCCs for medical conditions not previously risk adjusted will require new analytics development to identify potential HCC gaps. Also note that changes to hierarchy rules and HCC Group mapping will alter the net risk score impact of said HCCs. Pulse8's flagship product, **Calcul8**, is currently being updated to identify open gaps for all HHS-HCCs new in V07.*

Source: <https://www.cms.gov/files/document/draft-2021-update-icd-10-crosswalk-hhs-hcc-risk-adjustment-model.xlsx/>

ADDITION OF HCC 22, “TYPE 1 DIABETES”

Traditionally, the HHS-HCC risk score models distinguished diabetes severity costs by disease complication status: HCC 19-Acute Complications, HCC 20-Chronic Complications and HCC 21-Uncomplicated. The V07-HHS model introduces, for the first time, risk score methodology for diabetes disease type with the advent of HCC 22 – Type 1 Diabetes. The V07 model does not change any V05 mappings or hierarchy rules within the traditional Diabetes HCC Group of 19, 20 and 21. The new V07 HCC 22 is additive to risk score yield for HCC Diabetes Group; it serves as a booster to Type 1 enrollee risk scores.

Figure 1a – V07 Diabetes HCC Risk Scoring Example

| | HCC | Silver Metal Level HCC Risk Score | Total Diabetes Risk Score |
|---|-----------------------------|--------------------------------------|------------------------------|
| Enrollee A Type 1 | 21 - Uncomplicated Diabetes | 0.310 | 0.652 |
| | 22 - Type 1 Diabetes | 0.342 | |
| Enrollee B Type 2 | 21 - Uncomplicated Diabetes | 0.342 | 0.342 |
| V07 Risk Score Ratio - Type 1 over Type 1 | | | 110% |

Source: <https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/Final-2021-Benefit-Year-Final-HHS-Risk-Adjustment-Model-Coefficients.pdf/>

Figure 1a uses the published Silver Metal Level risk scores for V07 HCCs 21 and 22 to demonstrate how diabetes risk scores are now significantly distinguished by disease type. The advent of HCC 22 gives a 110% boost to Type 1 enrollee risk scores. Note: Platinum, Gold and Bronze plans have the same Type 1 to Type 2 total risk score ratios.

Figure 1b – Intersection Rates by ICD10 Diabetes Type

| Three-Digit ICD10 Codes Diabetes Types | Percent Enrollees > 1 Diabetes Type* |
|---|--|
| E08 - Due to Underlying Condition | 89% |
| E09 - Drug or Chemical Induced | 71% |
| E10 - Type 1 | 49% |
| E11 - Type 2 | 7% |
| E13 - Other Specified | 89% |

*As calculated from 2020 service date claims data, for enrollees continuously enrolled in 2020.

Source: <https://www.icd10data.com/ICD10CM/Codes/E00-E89/E08-E13>

Figure 1b exhibits the analysis of valid-for-risk adjustment medical claims with diabetes ICD10 diagnosis codes. Analysis of enrollees with a Type 1 ICD10 code identified roughly 50% with one or more subtype ICD10 codes other than Type 1 – a clinical impossibility: Per the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) the mechanism of Type 1 diabetes is the autoimmune destruction of insulin-producing beta cells in the pancreas. A fact that makes Type 1 diabetes clinically exclusive of other diabetes subtypes.

Source: <https://web.archive.org/web/20160816184729/https://www.niddk.nih.gov/health-information/diabetes/causes/>

Incorrect ICD10 codes in payer claims data is common; however, a potential 50% false positive rate for HCC 22 – Type 1 Diabetes could be an indication of a phenomenon with significant negative impact on the calculation of true and accurate diagnoses for proper risk score calculation and eventual health plan transfer payments. Note that the calculation of risk scores within the ACA Edge enrollee encounter submission protocol requires only a single instance of an HCC-mapping ICD10 code.

PULSE8 INSIGHT: *Pulse8 is currently updating its **Valid8** product to identify the enrollees with both Type 1 and non-Type 1 diabetes diagnoses. Additional **Valid8** analytics of this cohort will determine which enrollees are most likely not Type 1 diabetics and identify the provider claim(s) with the potentially flawed Type 1 ICD10 code(s).*

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NEW PAYMENT HCCs FOR V07

Figure 2 – Most Prevalent HCCs & The Eight New HCCs for Conditions Not Previously Risk-Adjusted

| HCC Code(s) | HCC / HCC Group Description | Estimated Prevalence Rate* | Silver Plan Risk Score |
|---------------------|---|----------------------------|------------------------|
| 19 / 20 / 21 | Diabetes | 7.5% | 0.310 |
| 88 | Major Depressive Disorder | 2.4% | 1.148 |
| 160 / 161.1 / 161.2 | COPD and Asthma | 1.4% | 0.597 |
| 83 / 84 - New | Alcohol Use/Abuse with Specified Complications - Alcohol Dependence | 0.9% | 1.061 |
| 123 - New | Narcolepsy and Cataplexy | 0.1% | 5.126 |
| 174 - New | Exudative Macular Degeneration | < 0.1% | 1.353 |
| 218 - New | Extensive Third Degree Burns | < 0.1% | 19.554 |
| 219 - New | Major Skin Burn or Condition | < 0.1% | 2.727 |
| 223 - New | Severe Head Injury | < 0.1% | 15.643 |
| 228 - New | Vertebral Fractures without Spinal Cord Injury | 0.2% | 4.739 |

* As calculated from 2020 service date claims data, for enrollees continuously enrolled in 2020.

- HCC Group Diabetes, HCC 88 – Major Depressive Disorder and HCC Group COPD/Asthma are the most prevalent conditions for the V07 HCC model, their prevalence rates are listed in this table for reference
- HCCs 83 and 84 are grouped and have identical risk scores, thereby eliminating any risk score gain through condition severity increase
- HCCs 123 and 174 are stand-alone HCCs free of hierarchy or group
- HCCs 218 and 219 are in their own hierarchy with 218 trumping 219
- HCCs 223 and 228 are in their own hierarchy with 223 trumping 228

Substance Use Disorders for the V07 HHS-HCC Model

Figure 3a, below, exhibits the coding convention used by ICD10 for psychoactive substance use disorders. For each of the 10 substances identified, the ICD10 code fourth digit distinguishes the three stages of disease progression: Use to Abuse to Dependence. At the fifth and sixth digit, the billable code

level (i.e., the individual ICD10 codes matched to HCCs), ICD10 standards describe specific disease state or type of illness.

Figure 3a – ICD10 Substance Use Disorder Coding Convention

| Three-Digit ICD10 Range: F10-F19 (Non-Billable) | Fourth Digit ICD10 Entries (Non-Billable) | Fifth & Sixth Digit ICD10 Sub-Entries (Billable) |
|--|---|---|
| F10-Alcohol F11-Opioid F12-Cannabis F13-Sedative/Hypnotic F14-Cocaine F15-Stimulant F16-Hallucinogen F17-Nicotine* F18-Inhalant F19-Other | Use, Abuse, Dependence | Mood Disorders, Psychotic Disorders, Amnesia, Dementia, Other Disorders, Unspecified Disorder, Uncomplicated, Intoxication, Withdrawal, In Remission |

*Nicotine is not included in the HHS-HCC model.

Source: <https://www.icd10data.com/ICD10CM/Codes/F01-F99/F10-F19/>

Figure 3b – ICD10 Substance Use Disorder Codes Included in V07 HHS-HCC Model

| Fourth Digit ICD10 Entries (Non-Billable) | Three-Digit ICD10 Range: HCCs to F10-F19 (Non-Billable) | Fifth & Sixth Digit ICD10 Sub-Entries (Billable) |
|---|--|--|
| Use, Abuse | Alcohol: HCCs 83 & 84 F10 | Mood Disorders, Psychotic Disorders, Amnesia, Dementia, Other Disorders |
| | Drugs: HCCs 81 & 82 F11 - F16, F18, F19 (All substances except Alcohol & Nicotine) | Mood Disorders, Psychotic Disorders, Amnesia, Dementia, Other Disorders, Unspecified Disorders, Intoxication |
| Dependence | Alcohol + Drugs: HCCs 81, 82, 83, 84 F10 - F16, F18, F19 (All substances except Nicotine) | All |

Sources: <https://www.icd10data.com/ICD10CM/Codes/F01-F99/F10-F19/>,
<https://www.cms.gov/files/document/draft-2021-update-icd-10-crosswalk-hhs-hcc-risk-adjustment-model.xlsx/>

PULSE8 INSIGHT: *Figure 3b, above, juxtaposes ICD10 fourth digit disease progression stage before the three-digit ICD10 range of substances to better demonstrate HHS-HCC inclusion rules for Use and Abuse versus Dependence. The HHS-HCC model includes all billable ICD10 codes for enrollees diagnosed with Alcohol and/or Drug Substance Dependence, whereas enrollees diagnosed with Substance Use or Abuse will only map to an HHS-HCC for specific states or types of illness.*

In general, physician ICD10 coding frequency is much higher for more generalized diagnosis characterizations like “uncomplicated” or “unspecified”. Therefore, and as always, health plans should continue to emphasize to providers the importance of making and coding diagnoses properly, to the most detailed level. Additionally, and specifically for Substance Disorders, health plans should educate providers on the medical determinations for Substance Dependence vs Substance Use and Abuse.