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HCC Coding, Risk Adjustment, and Physician Income: What You Need to Know

Accurate coding drives accurate risk adjustment, which will increasingly affect your bottom line.

Most physicians are aware of new models of payment, including accountable care organizations (ACOs), bundled payments, and value-based purchasing, that are increasingly shifting financial risk to providers. However, many physicians may be unaware of how essential accurate coding is under these models to characterize risk, enhance shared savings, and provide patient-centered care. This article will explain the “HCC” method of risk adjustment and how it may be affecting you and your practice now and in the near future, even if you don’t belong to an ACO. Hospital, group, and health system employers increasingly are paying physicians based on how their system performs in value-based care. In this environment, risk adjustment can greatly affect physician income, so it is important to get it right.

A shifting risk environment

The concept of risk bearing has existed in health care for decades. Medicare Advantage (MA) plans, which have been in operation in diverse forms since the 1970s, receive capitated, per member per month (PMPM) payments and

thus bear financial risk for the total cost of care for a beneficiary. Yet MA plans have largely been administered by experienced commercial insurers, which have been able to leverage benefit design, geography, and enrollment to be financially successful in managing risk.

Increasingly, provider-led organizations such as Medicare Shared Savings Program (MSSP) ACOs are bearing risk without some of the benefits that MA plans enjoy but under the same risk-adjustment methodology. *Risk adjustment* is the process of modifying payments and benchmarks to reflect the degree of illness, which in turn allows the Centers for Medicare & Medicaid Services (CMS) to estimate future spending and allows providers to understand the health characteristics of their managed population. In both MA plans and MSSP ACOs, this risk adjustment methodology is called Hierarchical Condition Categories (HCCs).

MA plans have leveraged the HCC methodology with significant financial success, and providers should take heed. Understanding HCCs – which more accurately portray patients’ conditions and prospective costs – and understanding how CMS uses them to calculate expenditure benchmarks or PMPMs is crucial to an ACO’s

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CALCULATING THE RISK SCORE AND EXPECTED ANNUAL EXPENDITURE

Individual scores/weights are assigned to patient demographics and HCCs and then added together to calculate the total risk adjustment factor (RAF) score. RAF scores are then multiplied by the published denominator (\$9,050 as of 2014) to derive an expected annual expenditure.

The following example shows the RAF score and expected annual expenditure for a 76-year-old male with three conditions.

Risk adjustment factor (RAF)	RAF score	Expected annual expenditure
Male 75 to 79 years old	1.062	\$9,611
HCC 86, Acute myocardial infarction	0.282	\$2,552
HCC 111, Chronic obstructive pulmonary disease	0.355	\$3,213
HCC 137, Renal failure stage IV	0.230	\$2,082
Totals	1.929	\$17,457

ability to earn shared savings and avoid shared loss. This understanding will become increasingly relevant to the operational viability of independent practice owners and health systems as well. The ultimate goal is to improve patient outcomes at reduced costs, and to make providers accountable for both.

How CMS assigns HCCs

The CMS-HCC model is a prospective risk-adjustment tool implemented by CMS in 2004 to estimate future expenditures for Medicare beneficiaries.¹ It was initially employed by CMS to adjust capitation payments to MA plans but is now used to calculate expenditure benchmarks for MSSP ACOs as well. Generally, the model estimates higher expenditures for sicker beneficiaries and lower expenditures for healthier ones. A major limitation of the model is that it can only predict a small proportion of total expenditure. The current version of the model explains only 12 percent of cost variation (R^2) between individual beneficiaries.²

HCCs are derived from ICD codes via retrospective review of claims data. ICD codes are factored into the algorithm regardless of site of service (inpatient or outpatient), provider type (physician or extender), or order of diagnosis (primary or secondary). An ICD code maps to exactly one HCC, but *not all ICD codes map to an HCC*. Approximately 10,000 ICD-10 codes map to an HCC, but this is just 14 percent of the approximately 69,000 diagnosis codes.³ The CMS-HCC model focuses on chronic health conditions likely to affect long-term health expenditures and purposefully excludes non-diagnostic diagnoses (e.g., a diagnosis of *abdominal pain*), clinically

insignificant diagnoses (e.g., a *sprain*), or diagnoses that are definitively treated (e.g., *acute appendicitis*).

HCCs are termed *hierarchical* because, for some disease states such as diabetes, multiple HCCs capture differing severity of illness. Within an HCC grouping, a patient is assigned only the HCC that corresponds to the most severe manifestation documented. For example, if review of a beneficiary's claims data finds ICD codes mapping to both HCC 17, Diabetes with acute complications (e.g., ICD-10 code E0811), and HCC 19, Diabetes without complication (e.g., ICD-10 code E089), the model would assign only HCC 17, because it is

the more severe manifestation of diabetes.

Although HCCs within a disease grouping are mutually exclusive, as in the example above, HCCs from different disease states are additive within the model. A beneficiary can be assigned both HCC 86, Acute myocardial infarction, and HCC 19, Diabetes without complications, each of which would provide for risk adjustment.

The CMS-HCC model incorporates other risk adjustments. Demographic information is incorporated in the form of age-sex pairs as well as disease-disabled status and Medicaid eligibility. The model also adjusts for interactions between diseases. These disease interaction adjustments are based on clinical experience and derived from iterative testing of the model. For example, while the presence of renal failure and heart failure independently predicts higher expenditures that are additive, the presence of both predicts incrementally higher expenditures. In other words, the whole is greater than the sum of its parts.

Different models for different populations

Due to differences in resource use between groups of Medicare beneficiaries and the inability of a single statistical model to predict expenses for all groups, CMS employs several different versions of the CMS-HCC model. Risk for the majority of Medicare beneficiaries is calculated using the "community" model. There is a separate model based solely on demographic data for new enrollees who do not have a full year's worth of Medicare claims data on which to base HCC assignment. There is also a separate model for institutionalized beneficiaries who reside in nursing homes or other assisted living

Each chronic medical problem must be coded and documented annually to be incorporated by CMS into annual risk score recalculations.

facilities. This institutional model uses the same set of HCCs as the community model but assigns different weights and adds additional disease interactions specific to that population. Finally, CMS employs a separate model for the end-stage renal disease population. Although this population represents a small percentage of the overall beneficiary pool, they have significant health needs and incur markedly higher health expenses than the general Medicare population.

Accurate coding is essential to accurately characterize risk and enhance shared savings.

In general, the CMS-HCC risk-adjustment model estimates higher expenditures for sicker beneficiaries and vice versa.

Without risk-based estimates of expenditures, practices could be held to unreasonable benchmarks and suffer financial losses.

Turning HCCs into risk scores

CMS calculates a risk score, or “risk adjustment factor” (RAF) score, for each individual beneficiary and provides this information to each ACO quarterly. Deriving these scores from HCCs is relatively straightforward. Each demographic adjustment and HCC carries a score/weight within the model. Adding the weights together produces a risk score for that beneficiary. (See “Calculating the risk score and expected annual expenditure,” page 25.) The model is normalized to a value of 1.0. Risk scores generally range between 0.9 and 1.7, and beneficiaries with risk scores less than 1.0 are considered relatively healthy. Each year CMS publishes a “denominator” that assists in converting risk scores to dollar amounts. For example, in 2014 this denominator was \$9,050. Multiplying the risk score by this denominator produces an estimated annual expenditure for a beneficiary. Similarly, multiplying the weight of an HCC by the denominator produces a dollar figure that represents the marginal contribution of that HCC to the overall estimated health expenditure.

The CMS-HCC risk-adjustment model was designed to most accurately predict spending at the group level, not the individual beneficiary level. Thus, the expenditure predicted for an individual beneficiary is likely to be less accurate than the expenditure pre-

dicted for a group of beneficiaries.

It is more helpful, then, to look at risk scores at the practice level. To manage risk effectively, a practice should know its risk score for each insurer with which it has a value-based contract. If your practice doesn't have this data, ask for it.

Why HCCs matter

CMS-HCC risk scores factor heavily into benchmark calculations for MSSP ACOs and capitation rates for MA plans.

For MSSP ACOs, higher risk scores for a population translate into a higher benchmark for expenditures, while lower risk scores translate into a lower benchmark. Having an accurate benchmark is vital in achieving shared savings. A benchmark that inadequately reflects the underlying health status of a population will be too low and will lead to expenditures that are higher than expected.

For MA plans, higher risk scores translate into higher PMPM payments, and lower risk scores translate into lower PMPM payments. MA programs may suffer financial losses if their HCC scores underestimate the degree of illness within their beneficiary population.

HCCs are also increasingly relevant to exchange-based insurance products. Starting in 2014, CMS began using a modified version of its CMS-HCC model, the Department of Health & Human Services (HHS)-HCC model, to calculate risk scores for individuals purchasing insurance plans on the federal health exchange. The HHS-HCC model employs multiple models based on beneficiary age and type of insurance plan, and the risk score it calculates is used to estimate financial liability for insurers who offer products on the exchange.⁴

For a nascent MSSP ACO, getting your benchmark right has immense financial implications, because benchmarks generally

aren't adjusted upward but may be adjusted downward. Each year, CMS reviews claims data and recalculates risk scores. For *newly* assigned beneficiaries, both the demographic and risk components of the risk score are used to adjust the benchmark in that year. Beyond that year of attribution, the beneficiary becomes a *continuously* assigned beneficiary. For *continuously* assigned beneficiaries, only the demographic component of the risk score is used to adjust the benchmark, with one exception. If a continuously assigned beneficiary appears healthier over time by virtue of fewer assigned HCCs from year to year, the risk component of the risk score for that beneficiary may be adjusted downward.

For example, consider a newly attributed 79-year-old male with uncomplicated diabetes (ICD-10 code E11.9, which maps to HCC 19, Diabetes without complication) in year one who develops a diabetic mononeuropathy (ICD-10 code E0841, which maps to HCC 18, Diabetes with chronic complications) in year two after turning 80 years old. His year-two risk score will reflect an increase in predicted expenditure related to his new demographic category (male age 80 to 84) but will not reflect an increase in predicted expenditure related to his increase in disease severity (from HCC 19 to HCC 18). This lack of acknowledgement by CMS that chronic conditions can and frequently do worsen over time (despite appropriate medical management) is understandably frustrating to providers.

In addition, it is not enough to correctly code the patient's diagnosis. The plan of care must support the diagnosis for each condition listed, and the condition must be reestablished, along with the appropriate care plan, each year. In other words, previous coding resets to zero if not reestablished. It may *seem* that the coding for amputation would carry forward from year to year, but that is not the case.

The implications of this methodology are important. For *continuously* assigned beneficiaries, the specificity and completeness of coding and supporting documentation must remain at least as specific as it was during the pre-attribution period to ensure that the appropriate level of risk is attributed and the benchmark is not adjusted downward. Each chronic medical problem must be coded and documented annually to be incorporated by

CMS into annual risk score recalculations. Given the potential for turnover in the population attributed to an MSSP ACO, a likely best practice would be to methodically document and code the health status of all Medicare beneficiaries regardless of whether they are currently attributed to your ACO.

Going forward

The shift toward providing more specific and complete documentation of all medical problems on an annual basis will be a challenge for many practices. This could be particularly problematic in the outpatient setting, which typically has less administrative infrastructure to support adequate coding. However, aligning current payment-focused billing and documentation practices with evolving risk-adjustment-focused coding practices will only become more important for all ambulatory settings in the future. Failing to adequately capture a patient's risk through documentation and coding may lead to an inaccurately low level of attributed risk and eventually to reduced reimbursement. On the other hand, accurate and thorough documentation and coding will give your practice its best chance of earning shared savings and in turn help you become more successful in managing your patient population. **FPM**

■ For a newly assigned beneficiary, CMS takes into account both patient demographics and risk when determining the risk score.

■ For a "continuously assigned" beneficiary, CMS may adjust the risk score downward if you do not reestablish the patient's condition and care plan each year.

■ Practices should code and document each chronic medical problem annually for each Medicare patient to ensure CMS properly calculates the risk score.

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