Risk Adjustment Coding and HCC Guide

Simplifying the RA/HCC systems and optimization opportunities
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Introduction

The traditional fee-for-service payment model has been widely used since the 1930s when health insurance plans initially gained popularity within the United States. In this payment model, a provider or facility is compensated based on the services provided. This payment model has proven to be very expensive. Closer attention is being paid to healthcare spending versus outcomes and quality of care and this has been compared to the healthcare spending of other nations. This has caused a need to develop a system to evaluate the care being given.

In the 1970s, Medicare began demonstration projects that contracted with health maintenance organizations (HMO) to provide care for Medicare beneficiaries in exchange for prospective payments. In 1985, this project changed from demonstration status to a regular part of the Medicare program, Medicare Part C. The Balanced Budget Act (BBA) of 1997 named Medicare’s Part C managed care program Medicare+Choice, and the Medicare Prescription Drug, Improvement and Modernization Act (MMA) of 2003 again renamed it to Medicare Advantage (MA).

Medicare is one of the world’s largest health insurance programs, and about one-third of the beneficiaries on Medicare are enrolled in an MA private health care plan. Due to the great variance in the health status of Medicare beneficiaries, risk adjustment provides a means of adequately compensating those plans with large numbers of seriously ill patients while not overburdening other plans that have healthier individuals. MA plans have been using the Hierarchical Condition Category (HCC) risk-adjustment model since 2004.

The primary purpose of a risk-adjustment model is to predict (on average) the future health-care costs for specific consortiums enrolled in MA health plans. The Centers for Medicare and Medicaid Services (CMS) is then able to provide capitation payments to these private health plans. Capitation payments are an incentive for health plans to enroll not only healthier individuals but those with chronic conditions or who are more seriously ill by removing some of the financial burden.

The MA risk-adjustment model uses HCCs to assess the disease burden of its enrollees. HCC diagnostic groupings were created after examining claims data so that enrollees with similar disease processes, and consequently similar healthcare expenditures, could be pooled into a larger data set in which an average expenditure rate could be determined. The medical conditions included in HCC categories are those that were determined to most predictably affect the health status and healthcare costs of any individual.

Section of 1343 of the Affordable Care Act (ACA) of 2010 provides for a risk-adjustment program for non-Medicare Advantage plans that are available in online insurance exchange marketplaces. Beginning in 2014, commercial insurances were able to potentially mitigate increased costs for the insurance plan and increased premiums for higher-risk populations, such as those with chronic illnesses, by using a risk-adjustment model. The risk-adjustment program developed for use by non-Medicare plans is maintained by the Department of Health and Human Services (HHS). This model also uses HCC diagnostic groupings; however, this set of HCCs differs from the CMS-HCCs to reflect the differences in the populations served by each healthcare plan type.

This publication will cover the following:

- History and purpose of risk-adjustment factor (RAF)
- Key terms definitions
- Acceptable provider types
- Payment methodology and timeline
- Coding and documentation
Chapter 1. Risk Adjustment Basics

The need to track and report disease and causes of death was recognized in the 18th century. The various popular methodologies were compiled over the course of the First through Fifth International Statistical Institute Conferences in the 20th century; during the Sixth International Conference, the World Health Organization (WHO) was tasked with revising and maintaining the classifications of disease and death. In the 1930s health insurance coverage gained popularity. Many labor groups and companies started offering this type of benefit to their employees. In 1966, the American Medical Association (AMA) published the first edition of the Current Procedural Terminology (CPT®) to standardize the reporting of surgical procedures. This framework created the fee-for-service payment model, which is currently used.

The fee-for-service model, however, does not account for acuity or morbidity of its patients. A medically complex, chronically ill patient's healthcare provider would receive the same reimbursement for the same procedure done on a healthy patient.

In 1997, the Balanced Budget Act mandated that Medicare begin allowing participants to choose between traditional Medicare and managed Medicare plans (now Medicare Advantage), which would incorporate the risk-adjustment payment methodology no later than January 2000. Initially, these managed Medicare plans were paid a fixed dollar amount to care for Medicare members. In 2007, these MA plans were based 100 percent on risk adjustment. This better allocates resources to populations of medically needy patients.

Risk adjustment allows the Centers for Medicare and Medicaid Services (CMS) to pay plans for the risk of the beneficiaries they enroll, instead of an average amount for Medicare beneficiaries. By risk adjusting plan payments, CMS is able to make appropriate and accurate payments for enrollees with differences in expected costs. Risk adjustment is used to adjust bidding and payment based on the health status and demographic characteristics of an enrollee. Risk scores measure individual beneficiaries’ relative risk and risk scores are used to adjust payments for each beneficiary’s expected expenditures. By risk adjusting plan bids, CMS is able to use standardized bids as base payments to plans.

Key Terms

- **Hierarchical condition categories (HCC).** Groupings of clinically similar diagnoses in each risk-adjustment model. Conditions are categorized hierarchically and the highest severity takes precedence over other conditions in a hierarchy. Each HCC is assigned a relative factor that is used to produce risk scores for Medicare beneficiaries, based on the data submitted in the data collection period.

- **Medicare Advantage (MA) plan.** Medicare Advantage plans, sometimes called “Part C” or “MA plans,” are offered by private companies approved by Medicare. If a Medicare Advantage plan is selected by the enrollee, the plan will provide all of Part A (hospital insurance) and Part B (medical insurance) coverage. Medicare Advantage plans may offer extra coverage, such as vision, hearing, dental, and/or health and wellness programs. Most include Medicare prescription drug coverage (Part D).

- **Risk-adjustment factor (RAF).** Risk score assigned to each beneficiary based on his or her disease burden, as well as demographic factors.

- **Sweeps.** Submission deadline for risk adjustment data that occurs three times annually: January, March, and September. Generally, claims continue to be accepted for two weeks after the deadline.
### MS-DRG Compared to HCC

<table>
<thead>
<tr>
<th>Feature Payment groups</th>
<th>HCCs (Medicare, non RX) 79 HCCs</th>
<th>MS-DRGs 754 MS-DRGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD-10-CM codes</td>
<td>Just over 9,000 have RAF value.</td>
<td>All ICD-10-CM codes have the potential to affect MS-DRG assignment. Some codes may result in an “ungroupable” MS-DRG.</td>
</tr>
<tr>
<td>ICD-10-CM codes are used in one payment group only</td>
<td>An ICD-10-CM code appears in only one HCC, with few exceptions.</td>
<td>Codes may be used in multiple MS-DRGs.</td>
</tr>
<tr>
<td>ICD-10-PCS codes</td>
<td>HCCs are not affected by ICD-10-PCS procedure codes.</td>
<td>Thousands of ICD-10-PCS codes, alone or in combination, can affect MS-DRG assignment.</td>
</tr>
<tr>
<td>Payment group assignment</td>
<td>An individual may have more than one HCC assigned.</td>
<td>Only one MS-DRG is assigned for each inpatient stay.</td>
</tr>
<tr>
<td>Codes used in payment</td>
<td>All HCCs are defined by diagnosis codes, typically chronic conditions.</td>
<td>MS-DRGs may include both procedures and diagnoses, both acute and chronic conditions.</td>
</tr>
<tr>
<td>Demographic factors used in payment</td>
<td>Age, sex, institutional status, disability, dual eligibility for Medicare and Medicaid.</td>
<td>Age, sex, discharge status.</td>
</tr>
<tr>
<td>Reporting time frame</td>
<td>HCCs are calculated over a year, using scores from all providers that have treated the patient in that time.</td>
<td>MS-DRGs capture one inpatient encounter at a time and for one single provider at a time.</td>
</tr>
<tr>
<td>Validation</td>
<td>For HCCs, all diagnoses submitted must be properly documented and have been monitored, evaluated, assessed, and treated (MEAT).</td>
<td>For MS-DRGs, diagnoses must meet the Uniform Hospital Discharge Data Set (UHDDS) definitions of both Principal Diagnosis and Other Diagnoses.</td>
</tr>
</tbody>
</table>

There is an increasing need for hospital inpatient coders to learn the outpatient coding rules in order to properly capture and report HCC diagnoses, as hospitals frequently acquire physician practices and perform coding and billing functions for these practices. In addition, inpatient coders may not routinely assign codes for chronic conditions that do not qualify as a CC or an MCC for MS-DRG assignment. These chronic conditions are now important elements that can affect the total risk score for the patient.

### Programs of All-inclusive Care for the Elderly

The Programs of All-Inclusive Care for the Elderly (PACE) program is a Medicare and Medicaid program that aims to assist elderly patients with having their medical needs met within the community instead of in a nursing or other care facility. This program focuses on having a care team that coordinates the services provided in the home community and PACE center.

There are four criteria to determine if a patient qualifies for a PACE program. The patient must:

- Be at least 55 years-old
- Live in the service area of a PACE organization
- Need a nursing home-level of care (meeting state set certification criteria)
- Be able to live safely within the community with assistance from the PACE program
PACE programs are paid a monthly capitation fee by CMS, which is prospective. These payments are calculated using the pre-ACA county rate, which is not adjusted for indirect medical education (IME), multiplied by the beneficiary’s total risk score and the organization frailty score. The frailty adjustment is unique to the PACE model of risk adjustment and is added to offset the variations in care expenditures for frail populations. This adjustment accounts for costs that would otherwise be unpredicted by the CMS-HCC model, such as functional impairments. Medicaid-eligible members do not pay a monthly premium. Medicare-eligible members do pay a monthly premium for each the long-term-care portion of the PACE benefit and for the Medicare Part D drugs. There is no copayment or deductible for any drug, service, or care approved by the beneficiary’s healthcare team.

Services covered under the PACE model include:

- Adult day primary care
- Dentistry
- Emergency care
- Home care
- Hospital care
- Labs/radiology (such as x-ray)
- Meals
- Nursing home care
- Nutritional counseling
- Occupational therapy
- Physical therapy
- Prescription drugs (the PACE program will cover the Part D benefits)
- Preventive care
- Social services, such as:
  - respite care
  - support groups
  - training for caregivers
- Social work counseling
- Transportation to the PACE center for activities and medical appointments

**End Stage Renal Disease**

CMS implemented the End Stage Renal Disease (ESRD) model to improve accuracy for enrollees with end stage renal disease, which includes patients on dialysis, having transplants, and in post-graft status. This model uses the same CMS-HCC model but the coefficients differ to account for costs of caring for a patient who falls into this ESRD category. This model does not vary significantly otherwise from the CMS-HCC model.

**RxHCC**

In 2006, CMS introduced a second HCC-based risk adjustment model, which covers the Part D (prescription drug) benefit. The Medicare Prescription Drug Improvement and Modernization Act (MMA) of 2003, created the second major Medicare capitated payment
system for the Medicare Part D prescription drug benefit. This model employs a similar structure of the CMS-HCC model wherein conditions are grouped into hierarchical condition categories assigned weights and trumping logic. This model was updated in 2011 based on data from the prescription drug event (PDE) data. This update included more recent cost data and utilization patterns.

**Payment**

Unlike the fee-for-service model, risk-adjustment payments from CMS are not paid after services are rendered. The service provider is compensated from the MA plan after the claim is filed but the plan does not receive payment from CMS at that time. The chart below shows the process of a claim within the risk-adjustment model.

Since risk adjustment is a predictive payment model for CMS, the data from service years must be submitted by deadlines to be included in the disease burden for the payment year. The following table is an example of the deadlines for submission and payment dates associated with those deadlines.
# Chapter 4.
## CMS-HCC Model Category V23

2019 CMS-HCC Model Disease Coefficient Relative Factors and Hierarchies for Community and Institutional Beneficiaries with 2019 Proposed ICD-10-CM Mappings

<table>
<thead>
<tr>
<th>Diagnosis Code</th>
<th>Description</th>
<th>CMS-HCC Model Category V23</th>
<th>CMS-HCC Model Description</th>
<th>CMS-HCC Hierarchies</th>
<th>Community, Non-Dual, Aged</th>
<th>Community, Non-Dual, Disabled</th>
<th>Community, PDI Dual, Aged</th>
<th>Community, PDI Dual, Disabled</th>
<th>Institutional, Aged</th>
<th>Institutional, Disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>A01.03</td>
<td>Typhoid pneumonia</td>
<td>115</td>
<td>Pneumococcal Pneumonia, Empyema, Lung Abscess</td>
<td></td>
<td>0.164</td>
<td>—</td>
<td>0.286</td>
<td>0.063</td>
<td>0.133</td>
<td>0.147</td>
</tr>
<tr>
<td>A01.04</td>
<td>Typhoid arthritis</td>
<td>39</td>
<td>Bone/Joint/Muscle Infections/Necrosis</td>
<td></td>
<td>0.431</td>
<td>0.430</td>
<td>0.588</td>
<td>0.756</td>
<td>0.475</td>
<td>0.495</td>
</tr>
<tr>
<td>A01.05</td>
<td>Typhoid osteomyelitis</td>
<td>39</td>
<td>Bone/Joint/Muscle Infections/Necrosis</td>
<td></td>
<td>0.431</td>
<td>0.430</td>
<td>0.588</td>
<td>0.756</td>
<td>0.475</td>
<td>0.495</td>
</tr>
<tr>
<td>A02.1</td>
<td>Salmonella sepsis</td>
<td>2</td>
<td>Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock</td>
<td></td>
<td>0.428</td>
<td>0.527</td>
<td>0.334</td>
<td>0.658</td>
<td>0.393</td>
<td>0.411</td>
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<td>A02.22</td>
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<td>Pneumococcal Pneumonia, Empyema, Lung Abscess</td>
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<td>0.164</td>
<td>—</td>
<td>0.286</td>
<td>0.063</td>
<td>0.133</td>
<td>0.147</td>
</tr>
<tr>
<td>A02.23</td>
<td>Salmonella arthritis</td>
<td>39</td>
<td>Bone/Joint/Muscle Infections/Necrosis</td>
<td></td>
<td>0.431</td>
<td>0.430</td>
<td>0.588</td>
<td>0.756</td>
<td>0.475</td>
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<tr>
<td>A02.24</td>
<td>Salmonella osteomyelitis</td>
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<td>Bone/Joint/Muscle Infections/Necrosis</td>
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<td>0.431</td>
<td>0.430</td>
<td>0.588</td>
<td>0.756</td>
<td>0.475</td>
<td>0.495</td>
</tr>
<tr>
<td>A06.5</td>
<td>Amebic lung abscess</td>
<td>115</td>
<td>Pneumococcal Pneumonia, Empyema, Lung Abscess</td>
<td></td>
<td>0.164</td>
<td>—</td>
<td>0.286</td>
<td>0.063</td>
<td>0.133</td>
<td>0.147</td>
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<tr>
<td>A07.2</td>
<td>Cryptococcosis</td>
<td>6</td>
<td>Opportunistic Infections</td>
<td></td>
<td>0.446</td>
<td>0.808</td>
<td>0.592</td>
<td>0.888</td>
<td>0.359</td>
<td>0.732</td>
</tr>
<tr>
<td>A20.2</td>
<td>Pneumonic plague</td>
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<td>Pneumococcal Pneumonia, Empyema, Lung Abscess</td>
<td></td>
<td>0.164</td>
<td>—</td>
<td>0.286</td>
<td>0.063</td>
<td>0.133</td>
<td>0.147</td>
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<tr>
<td>A20.7</td>
<td>Septicemic plague</td>
<td>2</td>
<td>Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock</td>
<td></td>
<td>0.428</td>
<td>0.527</td>
<td>0.534</td>
<td>0.658</td>
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<td>0.411</td>
</tr>
<tr>
<td>A21.2</td>
<td>Pulmonary tularemia</td>
<td>115</td>
<td>Pneumococcal Pneumonia, Empyema, Lung Abscess</td>
<td></td>
<td>0.164</td>
<td>—</td>
<td>0.286</td>
<td>0.063</td>
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<td>0.147</td>
</tr>
<tr>
<td>A22.1</td>
<td>Pulmonary anthrax</td>
<td>115</td>
<td>Pneumococcal Pneumonia, Empyema, Lung Abscess</td>
<td></td>
<td>0.164</td>
<td>—</td>
<td>0.286</td>
<td>0.063</td>
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<td>0.147</td>
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<tr>
<td>A22.7</td>
<td>Anthrax sepsis</td>
<td>2</td>
<td>Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock</td>
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<td>0.428</td>
<td>0.527</td>
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<td>0.658</td>
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<td>A26.7</td>
<td>Erysipelothrix sepsis</td>
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<td>Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock</td>
<td></td>
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<td>0.527</td>
<td>0.534</td>
<td>0.658</td>
<td>0.393</td>
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</tr>
<tr>
<td>A31.0</td>
<td>Pulmonary mycobacterial infection</td>
<td>6</td>
<td>Opportunistic Infections</td>
<td></td>
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<td>0.808</td>
<td>0.592</td>
<td>0.888</td>
<td>0.359</td>
<td>0.732</td>
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<tr>
<td>A31.2</td>
<td>Disseminated mycobacterium avium-intracellulare complex (DMAC)</td>
<td>6</td>
<td>Opportunistic Infections</td>
<td></td>
<td>0.446</td>
<td>0.808</td>
<td>0.592</td>
<td>0.888</td>
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<td>0.732</td>
</tr>
<tr>
<td>A32.7</td>
<td>Clostridial sepsis</td>
<td>2</td>
<td>Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock</td>
<td></td>
<td>0.428</td>
<td>0.527</td>
<td>0.534</td>
<td>0.658</td>
<td>0.393</td>
<td>0.411</td>
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<tr>
<td>A36.81</td>
<td>Diphtheritic cardiomyopathy</td>
<td>85</td>
<td>Congestive Heart Failure</td>
<td></td>
<td>0.310</td>
<td>0.404</td>
<td>0.355</td>
<td>0.441</td>
<td>0.306</td>
<td>0.376</td>
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<tr>
<td>A39.1</td>
<td>Waterhouse-Friderichsen syndrome</td>
<td>23</td>
<td>Other Significant Endocrine and Metabolic Disorders</td>
<td></td>
<td>0.212</td>
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<td>Acute meningococcemia</td>
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<td>A39.3</td>
<td>Chronic meningococcemia</td>
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<td>Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock</td>
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<td>0.534</td>
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