Using Rx-MGs as Part of a Comprehensive HCC Management Program

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Medicare Advantage (MA) Overview

- Allows Medicare beneficiaries to receive benefits from private plans (rather than traditional fee for service plans)
  - Includes, PPO, HMO, PFFS, SNPs
  - Part A: Hospital Insurance
  - Part B: Medical Insurance
  - Part C: Hospital + Medical Insurance
  - Part D: Drug Coverage
- Plans bid to offer coverage to Medicare beneficiaries
  - If accepted, Medicare pays plans a capitated rate for services
    - They have been receiving payments this way for several years –Base payments are made based on the plan's bid and benchmark (a bidding target based on what Medicare was paying in that area before MA)
  - Plans that bid above benchmark pass on costs to members
  - Plans that bid below benchmark pass on savings to members

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Medicare Advantage (MA) Overview

- In addition, base payments are then adjusted based on each member's risk
  - Risk is determined by using the CMS HCC Model – annually for each member
    - Developed by DxCG for CMS
    - Model is updated annually (HCCs and weights)
  - Starting in 2007, 100% of the capitation payment is risk adjusted
- CMS is also implementing budget neutrality between 2007 and 2011
  - Plans not making changes to clinical coding reviews are at risk for lowered premiums and eroding margins over time

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Figure 2 Medicare Advantage payment system

Note: PPO (preferred provider organization), CMS–HCC (CMS–hierarchical condition category). Medicare payments to regional plans also reflect an intra-service area adjustment.

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Sample Patient

Factor	Weight	PMPM $
Female, Age 67	0.298	$179
Diabetes, Type II w/o complications	0.181	$109
Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.363	$218
Renal Failure	0.389	$233
Congestive Heart Failure	0.395	$237
Diabetes, Renal Failure and CHF interaction	0.664	$398

- Total risk score – 2.290 ($1374 PMPM)
- Should have coded Diabetes with Renal Manifestations (weight=.608, total PMPM=$1630)
- Diabetes, renal failure and congestive heart failure are at risk of dropping in the future

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Sample Patient – Diabetes does not Persist

- Diabetes, renal failure and congestive heart failure are at risk of dropping in the future

Factor	Weight	PMPM $
Female, Age 67	0.298	$179
Diabetes, Type II w/o complications		$0
Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.363	$218
Renal Failure	0.389	$233
Congestive Heart Failure	0.395	$237
Diabetes, Renal Failure and CHF interaction		$0

- Total risk score – 1.1445 ($867 PMPM)
- Risk score decreases from 2.290 ($1374 PMPM)

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Health Plan Risk in CMS Model

- Similar conceptually to the ACG methodology: diagnoses from claims are used to assess health status
- Differences
  - CMS-HCC model does not include all claim types
    - For example, excludes lab, pharmacy, DME, SNF
  - CMS-HCC model does not include all conditions
- The exclusion of codes creates nuances in the model that inherently increase the health plan's financial risk

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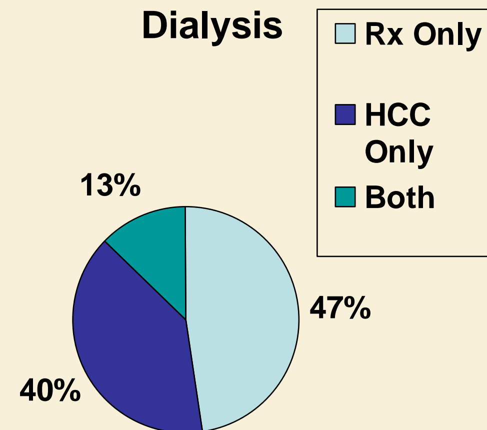
Model Dependence on Status Codes

- Status codes relate to a treatment or patient history
- Examples are amputation, dialysis, transplant, artificial openings, respirator dependence
- It is more intuitive for providers to code the underlying condition
- Of those coded with traumatic amputation in year 1, only 48% were coded with amputation status in year 2
- Graph compares HCC 130 (Dialysis Status)

  Rx-MG GURx020 (Chronic Renal Failure)



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Conditions Not Included in HCC model

- Coronary Atherosclerosis
- Hepatitis B and Hepatic Coma
- Cerebral Vascular Disease Without Infarct
- Dementia and Delirium (including Alzheimer's Disease)
- Substance Abuse
- Cardiac Valve Disorders
- Peptic Ulcer Disease
- Anxiety
- Meningitis
- Osteoarthritis
- Localized Third Degree Burns
- Asthma
- Hypertension

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Limited Set of Diagnoses in HCC Model

Example patient: Presents with coronary atherosclerosis, which is not in the HCC model

HCCs

HCC19	Diabetes without complications
HCC131	Renal Failure

EDCs

CAR03	Ischemic heart disease (excluding AMI)
END07	Type 2 diabetes, w/ complication
EYE08	Glaucoma
GSI02	Chest pain
HEM02	Iron deficiency, other deficiency anemias
MUS01	Musculoskeletal signs and symptoms
REN01	Chronic renal failure
REN02	Fluid/electrolyte disturbances
REN05	Renal disorders, other

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Rx-MGs for sample patient

HCCs

HCC19	Diabetes without complications
HCC131	Renal Failure

Rx-MGs

CARx010	Cardiovascular / Chronic Medical
CARx020	Cardiovascular / Congestive Heart Failure
CARx030	Cardiovascular / High Blood Pressure
CARx040	Cardiovascular / Hyperlipidemia
CARx050	Cardiovascular / Vascular Disorders
ENDx040	Endocrine / Diabetes Without Insulin
EYEx030	Eye / Glaucoma
GASx060	Gastrointestinal/Hepatic / Peptic Disease
GSIx020	General Signs and Symptoms / Pain
GURx020	Genito-Urinary / Chronic Renal Failure
MUSx010	Musculoskeletal / Gout
PSYx040	Psychosocial / Depression

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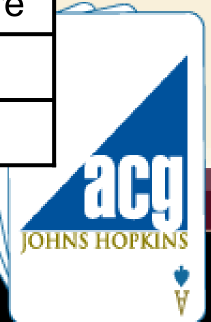
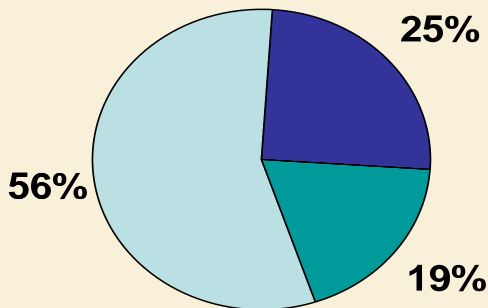
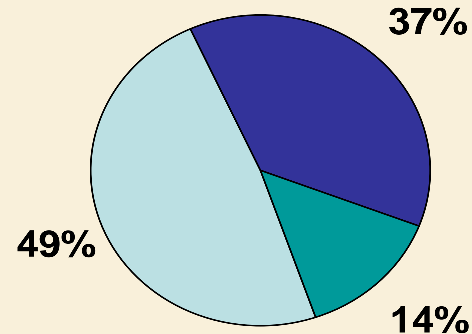


Provider Hesitancy to Code Conditions





Calculations for a Medicare health plan with 93,000 members

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Impact of Rx Data

	Total Population	Diabetes	Asthma
Significantly Understated	1.99%	2.47%	4.96%
Moderately Understated	19.68%	23.19%	26.22%

Significantly understated risk-CMS risk score less than 25% of Rx-PM risk score

Moderately understated risk-CMS risk score between 25% and 50% of Rx-PM risk score

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How to Maximize Payments

- In order to ensure maximum payment, health plans need to ensure that providers are coding accurately and completely
  - Currently reimbursed based on procedures – not diagnoses
- CMS considers the medical chart (not claims) the gold standard
  - Given considerable time to amend risk factors and receive retroactive payments
- Significant effort to monitor on an on-going basis and to audit all charts
  - Plans need to be smart in which charts to target → DSTHS RiskAnalyzer™
    - Prioritize members based on dollar amount and probability of financial recovery

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- Prioritize members and providers for medical chart audit using, for instance:
  - **Persistency** – If diagnoses for chronic condition was there last year, we would expect it to be there this year as well
  - **Diagnosis Specificity** – One digit in a diagnosis code can make the difference between full payment or no payment
  - **Related diagnoses** – Diagnosis codes that are used indicate presence of additional condition, that if coded would yield additional payment.
  - **Pharmacy but no diagnoses** – Identify presence of certain conditions through pharmacy use, that are not otherwise coded
  - **Services with implied diagnoses** – Presence of a procedure indicates presence of a condition that may not be coded
  - **Understated Risk:** ACGs can help determine patients where the CMS-HCC model is not adequately capturing patient risk

Suspect list for provider ABC*01

	Member	Review coding
√	001*123	Member is amputee without amputee status coded (Persistency)
√	001*546	Member has prescription for hypoglycemic without diabetes diagnosis (Pharmacy Use)
√	004*246	Member has history of alcoholic psychosis with no alcohol dependence coded
√	006*256	Diabetic treated for wound care without diagnosis for chronic ulcer

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How to Engage the Provider

- Health plan perspective: identify member that they are potentially losing premium on → identify physician with appropriate chart → confirm evidence of diagnosis in chart → educate physician on appropriate coding
- Will physician change coding so health plan can receive a higher premium? *Not likely*
- Engage provider by linking coding gaps to quality of care
  - **Show gaps in care and risk profile for identified members**
  - **Benefits**
    - **Increase billings**
    - **Improve care for patients**
    - **Qualify for P4P if health plans link performance to quality**
  - **How? Link RiskAnalyzer to CareAnalyzer**

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HCC Opportunity

Report Period: 1/1/2007 to 12/31/2007

High PPI = All,Moderate PPI = All,Low PPI = All,No Encounters PPI = All,Potential HCC = All,New Enrollee = No

HCC	Potential HCC	High Probability		Moderate Probability		Low Probability		No Encounters	
		Members	Potential Premium Increase($)	Members	Potential Premium Increase($)	Members	Potential Premium Increase($)	Members	Potential Premium Increase($
177	Amputation Status, Lower Limb/Amputation Complications	15	78,533	0	0	0	0	0	
83	Angina Pectoris/Old Myocardial Infarction	168	336,034	0	0	0	0	0	
176	Artificial Openings for Feeding or Elimination	69	453,547	0	0	0	0	0	
37	Bone/Joint/Muscle Infections/Necrosis	25	118,837	0	0	0	0	0	
10	Breast, Prostate, Colorectal and Other Cancers and Tumors	168	372,893	9	19,914	33	73,381	0	
101	Cerebral Palsy and Other Paralytic Syndromes	0	0	48	87,699	0	0	0	
27	Chronic Hepatitis	3	7,816	0	0	0	0	0	
108	Chronic Obstructive Pulmonary Disease	336	1,155,352	0	0	0	0	0	
149	Chronic Ulcer of Skin, Except Decubitus	4	15,790	0	0	293	1,165,256	0	
26	Cirrhosis of Liver	5	22,085	0	0	0	0	0	
75	Coma, Brain Compression/Anoxic Damage	14	54,766	0	0	0	0	0	
80	Congestive Heart Failure	287	976,586	0	0	0	0	0	
148	Decubitus Ulcer of Skin	0	0	0	0	30	287,367	0	
17	Diabetes with Acute Complications	0	0	165	450,353	0	0	0	
16	Diabetes with Neurologic or Other Specified Manifestation	66	146,693	66	158,470	0	0	0	
18	Diabetes with Ophthalmologic or Unspecified Manifestation	35	26,890	33	32,254	0	0	0	
15	Diabetes with Renal or Peripheral Circulatory Manifestation	14	[illegible]	[illegible]	[illegible]	0	0	0	
19	Diabetes without Complication	139	216,720	524	816,635	66	103,240	6	9,66
130	Dialysis Status	50	506,351	0	0	3	37,042	0	

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HCC Opportunity Detail

HCC Opportunity for Diabetes with Ophthalmologic or Unspecified Manifestation

Report Period: 1/1/2007 to 12/31/2007

Member Count = All,Probability = All,Type = All,New Enrollee = No

Rule #	Rule	Type	Probability	Provider Count	Potential HCC	Member Count
018.3	Ophthalmological disorder identified without diabetes manifestation diagnosis	Combination of Diagnoses	High	24	18	35
018.1	Ophthalmologic or Unspecified Manifestation in Diabetes patient not coded persistently	HCC Persistence	Moderate	20	18	29
018.2	Diagnosis coding not specific enough to confirm complicated or uncontrolled Diabetes	Diagnosis Specificity	Moderate	4	18	4

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HCC Member Detail

Probability: High
Report Period: 1/1/2007 to 12/31/2007
Potential HCC: 18 - Diabetes with Ophthalmologic or Unspecified Manifestation
Rule Type: Combination of Diagnoses
Rule: 018.3 - Ophthalmological disorder identified without diabetes manifestation diagnosis

PPI = All, Understated Risk = All, New Enrollee = No

Member ID	Potential Dx Code	PPI ($)	Total Potential HCCs	Total PPI ($)	CMS RS	Rx-PM PRS	Understated Risk
6557615*141935112	2505	4,688	6	34,911	4.55	1.09	
87724930*231925	2505	2,262	4	18,201	1.78	1.64	
8488701*12221920	2505	2,220	4	13,983	1.53	0.33	
88490813*611919	2505	2,220	3	11,009	2.49	2.55	
8387365*11111921	2505	2,433	4	9,925	1.26	0.58	
88354816*1241930	2505	2,220	3	9,342	1.84	0.32	
8267086*10261921	2505	2,433	2	7,731	4.41	0.33	
88479191*5231928	2505	2,433	3	6,473	1.03	1.40	
87736432*4101931	2505	2,201	3	6,314	0.65	0.65	
88388433*1261936	2505	2,201	3	6,289	1.10	0.64	
88421941*6141934	2505	2,262	4	5,635	2.10	1.34	
88236581*841937	2505	2,433	2	4,398	0.79	2.28	MODERATE
8316558*10151929	2505	2,201	3	4,170	1.72	0.57	
88372924*8311924	2505	2,262	2	4,115	2.05	1.11	
87714663*8201942	2505	2,201	2	4,004	0.58	0.51	
8402846*11291927	2505	2,433	2	3,324	0.70	1.68	MODERATE
88257339*2291936	2505	2,201	2	3,007	0.83	0.68	
88445976*131933	2505	2,201	2	3,007	0.55	0.28	
88478934*761927	2505	2,201	2	3,007	0.70	0.94	

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Member Suspect Detail

Member ID: 00121941*6141934
Potential Premium Increase: $5634.60
CMS Risk Score: 2.10
RX-PM Risk Score: 1.34
Understated Risk:
Report Period: 1/1/2007 to 12/31/2007

Member Dashboard   MRA Clinical Profile

Rule Type = All,Rule = All,Date of Service = All,Potential HCC = All,Probability = All,Provider ID = All,Historic Evidence = No

Rule #	Rule	Rule Type	Probability	Potential Diagnosis Code	Potential HCC	Provider ID	Claim Number	Date Service
016.1	Neurologic or Other Specified Manifestation in Diabetes patient not coded persistently	HCC Persistence	Moderate	25080	16	500*025833	061861041301	01/10/2007
017.1	Ketoacidosis identified without mention of diabetes	Diagnosis Specificity	Moderate	2501	17	300*99123226	06072E298100	02/25/2007
016.3	Hypoglycemia identified without uncontrolled diabetes diagnosis	Combination of Diagnoses	High	2508	16	300*9972637	061461029300	05/01/2007
018.3	Ophthalmological disorder identified without diabetes manifestation diagnosis	Combination of Diagnoses	High	2505	18	300*99196834	070681187500	06/16/2007
018.3	Ophthalmological disorder identified without diabetes manifestation diagnosis	Combination of Diagnoses	High	2505	18	300*9920038	062481488200	06/16/2007
131.3	Chronic renal failure recorded on ancillary claims	HCCs from Ancillary Claims	High	40391	131	500*025833	100016178	02/22/2007

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Member Dashboard

Member ID: 88421941*6141934
Member Name: Rachel J Lemmings
Member Gender: Female
Member Age: 72
PCP ID - Name: 300*99196816
PCP Specialty: 11 - Internal Medicine

Member Claims   Member Demographics   Member Profile

Compliance

Measure Name	Measure Numerator	Compliant	Contraindicated	Hybrid Mode	Start Date	End Date
Adult Access to Preventive Ambulatory Svcs	Adults Access to Preventive Services	Yes	No		1/1/2007	12/31/2007
Cholesterol Mgmt for CV Conditions	LDL-C Screening	No	No		1/1/2007	12/31/2007
	Less than 100 mg/dL	No	No		1/1/2007	12/31/2007
Colorectal Cancer Screening	Total Screenings	No	No		1/1/2007	12/31/2007
Comprehensive Diabetes Care	BP < 130/80	NA	No		1/1/2007	12/31/2007
	BP < 140/90	NA	No		1/1/2007	12/31/2007
	Eye Exam	No	No		1/1/2007	12/31/2007
	Good HbA1c Control	NA	No		1/1/2007	12/31/2007
	HbA1c Tested	No	No		1/1/2007	12/31/2007
	LDL-C < 100 mg/dL	NA	No		1/1/2007	12/31/2007
	LDL-C Screen	No	No		1/1/2007	12/31/2007
	Monitor Diabetic Neph	Yes	No		1/1/2007	12/31/2007
	Poor HbA1c Control	Yes	No		1/1/2007	12/31/2007
Controlling High Blood Pressure	Controlling High Blood Pressure	NA	Yes		1/1/2007	12/31/2007
Glaucoma Screening in Older Adults	Glaucoma Screening	No	No		1/1/2007	12/31/2007

Use of Services

Measure Name	Measure Numerator	Services	LOS	Hybrid Mode	Start Date	End Date
Ambulatory Care	Outpatient Visits	10			1/1/2007	12/31/2007
Inpatient Util Nonacute Care	Nonacute Care	1	79		1/1/2007	12/31/2007
Inpatient Util--General/Acute Care	Medicine	1	5		1/1/2007	12/31/2007
	Total Inpatient	1	5		1/1/2007	12/31/2007

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Member Clinical Profile

ACG Adjusted

Report Period 01/01/2007 to 12/31/2007

Member ID 88421941*6141934

HCCs

HCC #	HCC Description
HCC79	Cardio-Respiratory Failure and Shock
HCC26	Cirrhosis of Liver
HCC80	Congestive Heart Failure
HCC19	Diabetes without Complication

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Professional Claim Detail

Member ID: 88421941*6141934
Member Name: Rachel J Lemmings
Claim Number: 070681187500
Claim Line: 1
Claim Status: PAID

Claim Detail

Column Name	Column Value	Column Name	Column Value
First Date of Service	06/16/2007	ICD9 DIAG 1	REGULAR ASTIGMATISM
Last Date of Service	06/16/2007	ICD9 DIAG 2	DIABETES UNCOMP TYPE II
Service Category	PROF	ICD9 DIAG 3	DIABETIC RETINOPATHY UNSPEC
Paid Amount	12.59	ICD9 DIAG 4	HYPERMETROPIA
Allowed Amount	22.59	ICD9 DIAG 5	
Place of Service	11	ICD9 PROC 1	
Billing Provider	300*99196834	ICD9 PROC 2	
Billing Provider Specialty	08	ICD9 PROC 3	
CPT4	OFFICE VISIT, EST PAT	FILLER 1	
CPT4 Modifier		FILLER 2	
HCPCS	OFFICE VISIT, EST PAT	FILLER 3	
LOINC		FILLER 4	
Macroalbuminaria		FILLER 5	

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DSTHS CareAnalyzer™

Member Clinical Profile

ACG Adjusted

Report Period 01/01/2007 to 12/31/2007

Member ID 88421941*6141934

Rx Morbidity Groups

Major Rx-MG	Rx-MG
CAR Cardiovascular	CARx010 Cardiovascular / Chronic Medical
CAR Cardiovascular	CARx030 Cardiovascular / High Blood Pressure
CAR Cardiovascular	CARx050 Cardiovascular / Vascular Disorders
END Endocrine	ENDx040 Endocrine / Diabetes Without Insulin
GSI General Signs and Symptoms	GSIx020 General Signs and Symptoms / Pain

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Opportunities	Examples
Target suspects with the highest likelihood of recovery	•Patient has evidence of several manifestations of diabetes, while only uncomplicated diabetes was coded •Diabetic retinopathy was coded *on the same claim* with uncomplicated diabetes
Identify coding patterns to construct campaigns for provider education	•Diabetes manifestations are a common problem
Engage providers to improve quality of care	•Based on patient's conditions, several key screenings were not performed •Examples: LDL, HbA1c, Glaucoma screenings, and eye exam
Use Rx-PM to understand the full scope of risk	•Medicines for high blood pressure, vascular disease and pain are not contributing to CMS risk

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