RHODES GROUP

CHALLENGE:

Identifying true incidence of hierarchical categorical conditions within Medicare Advantage and Market Exchange plans can be difficult, which can minimize risk adjustment monthly allotment payments for ensuring care occurs.

SOLUTION:

Rhodes Group rendered a potential $3.7 million dollars in value for 7000 members, an overall lift of 65% compared to 2021.

USING LAB RESULTS WITHIN A RISK ADJUSTMENT STRATEGY IS VALUABLE FOR UNDERSTANDING THE CONDITIONS WITHIN A POPULATION OF MEMBERS

BACKGROUND

What is risk adjustment and why is it necessary?

The Centers for Medicare and Medicaid Services (CMS) created Medicare Advantage to enable people above the age of 65 to have health insurance coverage. The Affordable Care Act was established to create exchange markets so people without insurance could easily choose an optimal health plan. There are 28 million Americans enrolled in a Medicare Advantage plan and another 16.9 million people with individual market exchange coverage. The nobility of these approaches has resulted in more Americans receiving health coverage but is everyone receiving the same care with insurances minimizing risk?

The basis for the design of these insurance plans was equality. Yet this one size fits all approach can create deeply unfair outcomes for both members and insurers. Specifically for insurers, it means a certain degree of risk because they are insuring people with unknown medical conditions at the time of enrollment.

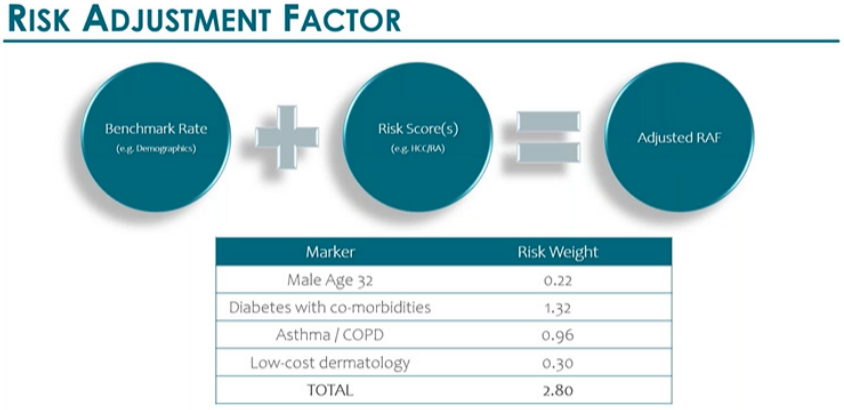
Risk adjustment, as defined by CMS, measures and predicts future healthcare expenditures for each member enrolled in a Medicare Advantage or Market Exchange plans. The monthly payments by CMS to Medicare Advantage insurers are adjusted based on risk adjustment factors (RAFs) for diagnoses and demographics. Exchange insurers compare and contrast risk based on very similar RAFs, then either pay or collect from a risk pool. The higher the enrollees' RAF, the higher the assumed risk, therefore, the payments are increased to cover additional healthcare expenditures.

How are payments calculated?

For purposes of discussion, let's use a simplified example of a male aged 32. The benchmark monthly payment rate includes demographics like gender, age, and risk score. The risk score includes comorbidities like asthma, diabetes, and low-cost dermatology. The benchmark score was .22, and with the additional RAFs, the total score is now 2.8. This total score is essential so the insurer can identify the risk of the member and appropriately assure the member receives the care needed and the provider is compensated.

Documentation is key

One of the primary keys to determine a total RAF score is documentation. A member or recipient must have a face-to-face encounter with a provider within the year the insurer claims the risk. The provider's office must code the conditions of that recipient and after the encounter, the claim must be paid by the insurer. This interaction enables eligibility for risk adjustment and the recipient must have a face-to-face encounter every year to continue the adjustment.



Marker	Risk Weight
Male Age 32	0.22
Diabetes with co-morbidities	1.32
Asthma / COPD	0.96
Low-cost dermatology	0.30
TOTAL	2.80

Figure 1. Simplified version of RAF for this discussion

Consequences of Not Doing Risk Adjustment

The consequences of not doing risk adjustment can be dire. Below is an example of an insurance company that participated in the Market Exchange. The plan opened in 2014 with 11,000 enrollees and a $300k loss. Fast forward to 2017, when the insurer realized it was not accurately accounting for risk adjustment. There were 100,000 enrollees with a $121m revenue loss. In 2018, the insurer closed the plan and exited the market exchange.

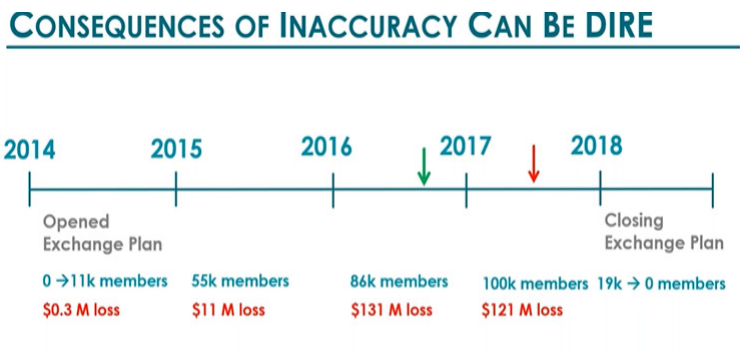


Figure 2. The possible consequences of not doing risk adjustment.

Risk Adjustment Using Multiple Code Sources

Our depiction in Figure 1 is grossly simplified as risk adjustment is complicated due to the variety of codes used in healthcare. Each type of healthcare code has its own pros and cons.

ICD-10-CM, the International Classification of Diseases, Tenth Revision, Clinical Modification, is a system of diagnosis codes and is the primary way to establish medical necessity for payment of healthcare services. The classification system has amazing depth and limitless codes, however, there may be inaccuracies in coding because a provider may have little time to interact with a patient [1, 2].

CPT, current procedural terminology, is used within healthcare to indicate what procedure or service a patient received, usually for diagnostic investigations. CPT will convey why a patient received the procedure via an ICD code as justification, but it lacks results leading to suspicion of what the patient may be diagnosed with.

[1] Horsky J, Drucker EA, and Ramelson HZ. Accuracy and Completeness of Clinical Coding Using ICD-10 for Ambulatory Visits. (2018) AMIA Annu Symp Proc. (April 16): 912-920
[2] Jalal K, Anan EJ, Venuto R, Eberle J, and Arora P. Can Billing Codes Accurately Identify Rapidly Progressing Stage 3 and Stage 4. Chronic Kidney Disease Patients: A Diagnostic Test Study. (2019) BMC Nephrol. 20(1): 260Arefian H, et al. Hospital-related cost of sepsis: A systematic review. (2017) J Infect. 4(2): 107-117

DRG, diagnostic related group, is a great source to understand why and when a patient is admitted to the hospital or the emergency room (ER). However, a DRG conveys a bundled summary and lacks specific detail for hierarchical condition category coding (HCC). There are comorbidities and there are complications providers are documenting outside the DRG. [3].

Medication is another way to determine a condition, however, some medications are used to treat multiple conditions [4, 5].

Figure 3. ICD-10 has high fidelity but has inaccuracies due to human error

SOLUTION

Example 1: Lab Data vs. Diagnosis Related Group

An individual accesses the ER and receives a lung sputum culture and an x-ray of the lungs. The ICDs are indicative of bacterial pneumonia and the DRG also shows bacterial pneumonia. The prescription is an antibiotic so one could conclude HCC 114 for Medicare Advantage, a 0.543 risk adjustment factor for bacterial pneumonia. But while in the inpatient setting, his serum creatinine levels change, which is indicative of acute renal failure and a risk adjustment factor of 0.456.

Rhodes Group (RG), using its patent-pending algorithms, interpreted TriCore Reference Laboratories' data and identified the presence of Acute Kidney Injury. Thankfully the hospital reacted appropriately, however this new diagnosis was not conveyed in the DRG. This additional RAF (0.456) was found and the payer is now able to manage the patient and possibly prevent the onset of chronic kidney disease.

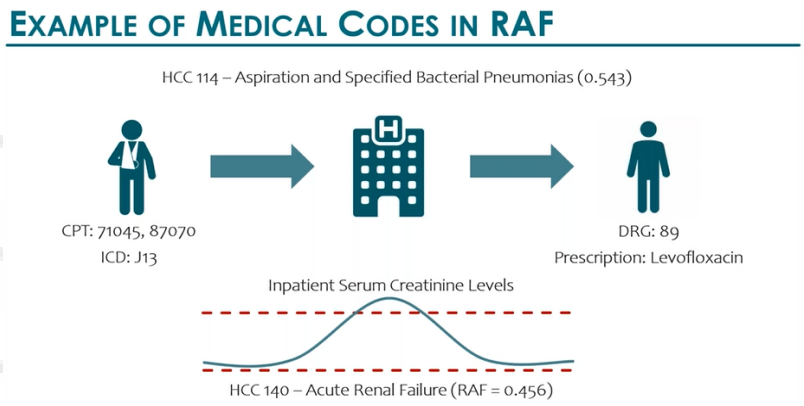


Figure 4. Example of using ICDs and DRGs

[3] Harding W. CMS Hierarchical Condition Categories Through a Different Lens. (2019) MedPartners. https://www.medpartners.com/cms-hierarchical-condition-categories-through-a-different-lens/ (Accessed: February 26, 2020)
[4] Pop-Busui R, Boulton JM, Feldman EL, et al. Diabetes neuropathy: A position statement by the American Diabetes Association. Diabetes Care. 2017; 40(1):136-154
[5] Neurontin (gabapentin) package insert. New York, NY: Pfizer Inc.; 2017 Dec.

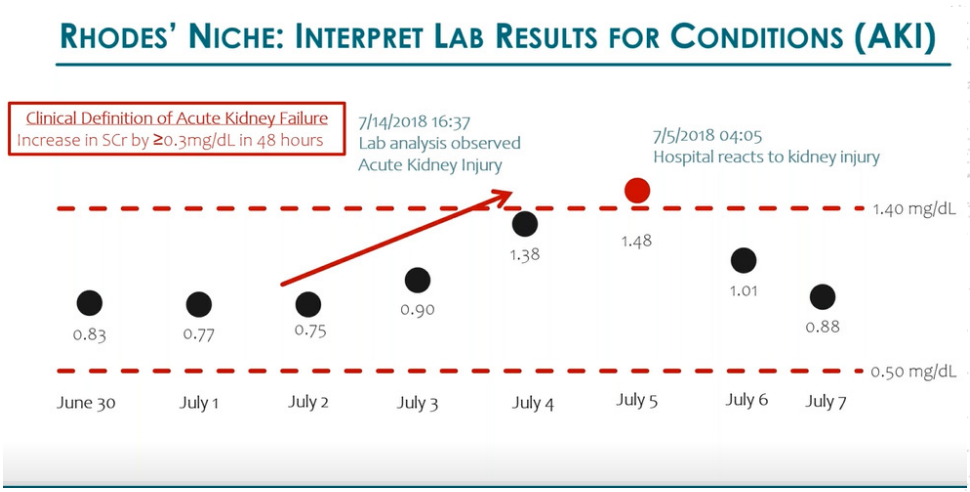
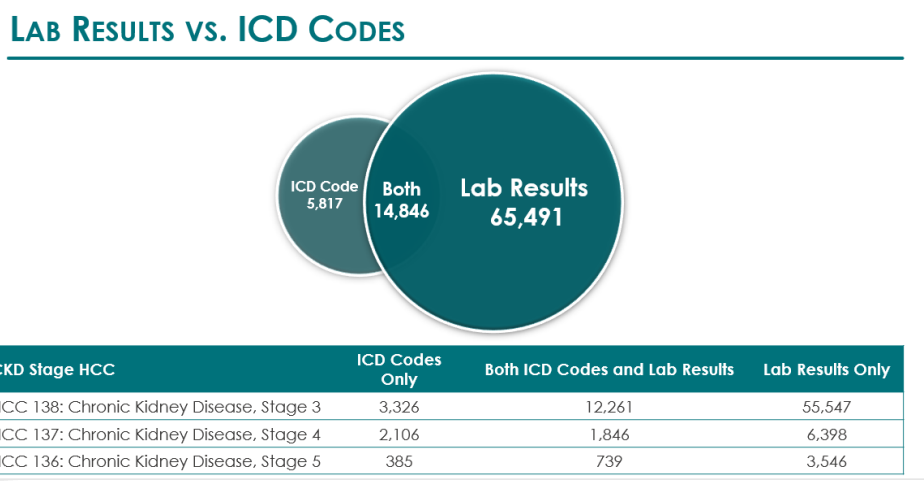


Figure 5. Using lab data to diagnose Acute Kidney Injury (AKI)

Example 2: Lab Data vs. ICD-10

Using TriCore's laboratory data, RG looked at three HCCs, representing the various stages of chronic kidney disease (CKD). The disease is defined by two estimated glomerular filtration rate (eGFR) tests in two years, separated by 90 days. The lab results are instrumental in determining what stage a patient could be in, and RG viewed the lab results for various CKD patients by reviewing ICD codes. There were approximately 83,000 patients with CKD in the database. Over 14,000 patients had both the ICD code and the clinical eGFR definition. There were over 5,000 patients that only had an ICD code and 65,000 that did not have the ICD code related to their lab orders, yet their lab results indicated the clinical diagnosis of CKD.

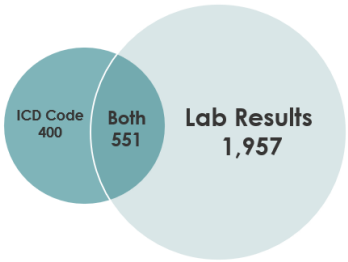


CKD Stage HCC	ICD Codes Only	Both ICD Codes and Lab Results	Lab Results Only
HCC 138: Chronic Kidney Disease, Stage 3	3,326	12,261	55,547
HCC 137: Chronic Kidney Disease, Stage 4	2,106	1,846	6,398
HCC 136: Chronic Kidney Disease, Stage 5	385	739	3,546

Figure 6. Using lab data to diagnose CKD stages.

Using the same method, RG reviewed beneficiaries within a local Medicare Advantage payer. Similarly, if the Medicare Advantage payer is relying on ICD codes to identify RAF eligible members with varying stages of CKD, they may miss $1.7m in adjustments among 2,908 beneficiaries.

Lab Results vs. ICD Codes: Medicare Advantage Payer



CKD Stage HCC	ICD Codes Only	Both ICD Codes and Lab Results	Lab Results Only	HCC Coefficient	Total RAF Value *Lab Results Only*	Approximate monetary value
138: CKD-3	287	460	1,795	0.0612	109.854	$1,263,000
137: CKD-4	87	52	117	0.2852	33.3684	$383,700
136: CKD-5	26	39	45	0.2852	11.1228	$127,900
			POTENTIAL TOTAL RA PAYMENTS (CKD ONLY)			$1,774,600

Figure 7. Using same method lab data for Medicare Advantage payer patients.

RESULTS

Exchange Payer

Rhodes Group has patent-pending algorithms reviewing lab data for twenty HCCs and has worked to refine them with a local exchange payer. With over 15,000 members enrolled in its plan, approximately 7,000 members received medical testing at TriCore. RG worked with the payer to identify a lift of over $3.7m in risk adjustment. Among many of the surprising findings were the members identified with diabetes and rheumatoid arthritis. There were 667 patients with diabetes that both the payer and RG verified had the condition. However, there were 383 patients the payer did not know have diabetes. Rheumatoid arthritis shows a 48% lift with close to $500k in value. The payer is currently reviewing the patients' electronic medical records (EMR) to find the documentation and verify if the claim was paid. RG will publish next year the true revenue impact to the payer.

Risk Adjustment for Exchange Payer (N=7,130)

HCC	Total Members	Rhodes No.	Payer No.	Potential Lift (%)	Value
Diabetes	667	383	284	134%	$1,060,067.40
Pregnancy (unfulfilled)	83	36	47	76%	$517,255.20
Rheumatoid Arthritis	110	36	74	48%	$471,744.00
Endocrine Disorders	37	4	33	12%	$35,599.20
Renal Disease – Stage 5	1	0	1	0%	-
Renal Disease – Stage 4	9	4	5	80%	$25,401.60
Organ Transplant	4	0	4	0%	-
End Stage Liver Disease	10	0	10	0%	-
Cirrhosis of Liver	30	22	8	275%	$199,584.00
Metastatic Cancer and Acute Leukemia	32	3	29	10%	$278,119.80
Hematological Disorders	2	2	0	100%	$21,176.40
Congestive Heart Failure	55	1	54	2%	$10,588.20
Acute Myocardial Infarction	34	15	19	78%	$572,985.00
Acute Kidney Injury	3	3	0	100%	$13,368.60
				TOTAL	$3,730,410.60

Figure 8. Potential risk adjustment payments for Exchange payer.

CONCLUSION

Lab results are used in the majority of diagnoses [[6]], therefore using them within a risk adjustment identification strategy is valuable. But they can also be used to determine when the patient qualified and from what provider. Additionally, lab results can identify eligible members who have not received care. Of course, not all HCCs are identified through lab results alone, but Rhodes Group has determined that utilizing them within the other codes of healthcare is a viable strategy to identifying risk within populations.

[6] Forsman, R. W. Why is the Laboratory an Afterthought for Managed Care Organizations? Clin Chem. 1996; 42: 813-816