IMPROVING RESOURCE USE MEASUREMENT UNDER MACRA

Creating Better Methods of Accountability for Healthcare Spending in Value-Based Purchasing and Alternative Payment Models

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Improving Resource Use Measurement Under MACRA
EXECUTIVE SUMMARY

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) creates two alternative paths by which Medicare payments to physicians will evolve over the next decade – the Merit-Based Incentive Payment System (MIPS) and Alternative Payment Models (APMs). Both MIPS and APMs require physicians to take accountability for utilization and spending on healthcare services. However, the current methodologies used by the Centers for Medicare and Medicaid Services (CMS) and private health plans for measuring spending during episodes of care, for attributing spending to physicians, and for risk adjusting spending measures have many serious weaknesses that have the potential to harm patients and to bankrupt healthcare providers, particularly small physician practices and hospitals. For example:

- Physicians cannot control all of the services and spending assigned to them under typical resource use measures.

- Physicians are not attributed the spending for many services they do provide.

- Many patients are not assigned to the physicians who are helping them manage their health problems.

- Risk adjustment systems do not adequately adjust for differences in patient needs.

Fortunately, Congress has recognized these problems, and MACRA requires the Department of Health and Human Services to develop and implement solutions. MACRA requires creation of three new ways of classifying services and patients:

- **Care Episode Groups.** MACRA requires the creation of "care episode groups" that define the types of procedures or services furnished for particular clinical conditions or diagnoses. If properly designed, Care Episode Groups will enable far better measures of the kinds of services and costs physicians can control or influence than the total cost of care and episode spending measures used in Medicare payment programs today.

- **Patient Relationship Categories.** MACRA requires the creation of "patient relationship categories" that define and distinguish the relationship and responsibility of a physician or applicable practitioner with a patient at the time of furnishing a service. If properly designed, Patient Relationship Categories will enable payments and accountability for spending and quality to be far more accurate than the retrospective statistical attribution methodologies used in Medicare payment programs today.

- **Patient Condition Groups.** MACRA requires the creation of "patient condition groups" based on a patient's chronic conditions, current health status, and recent significant history, such as hospitalization or surgery.

If properly designed, Patient Condition Groups will enable far better risk adjustment and acuity stratification than the methods used in Medicare payment programs today.

Each of these new groups and categories will have an associated code that physicians will record on the claims they submit for payment beginning on January 1, 2018.

Congress explicitly directed the Department of Health and Human Services (HHS) and the Centers for Medicare and Medicaid Services (CMS) to develop the details of these new groups and categories in a collaborative way with physicians and other stakeholders. MACRA requires HHS to undertake two separate rounds of input, each lasting 4 months, before finalizing the definitions of the Care Episode Groups and the Patient Condition Groups, and it requires a four-month period for obtaining input on the Patient Relationship Categories before they are finalized.

DEFINING CARE EPISODE GROUPS AND CODES

The Care Episode Groups and codes that MACRA requires represent a fundamentally different and significantly better approach to defining and measuring episodes of care than the "episode groupers" that CMS has been developing and that many private health plans currently use. Episode groupers are complex and highly error-prone because they try to determine the relationship between the services a patient receives long after those services have been delivered, using information from claims forms that were designed for billing purposes, not for defining clinical episodes. MACRA requires a *concurrent* approach that enables physicians to determine, at the time a service is rendered, the care episode or episodes to which the service should be assigned based on the goal of the service and its relationship to other services that the patient is receiving.

In order for the Care Episode Groups to solve the serious weaknesses with current episode groupers, they should be defined in the following ways:

- Care Episode Groups should be defined based on the patient's underlying health condition that is being treated, not just a procedure chosen for treatment.

- Separate Care Episode Groups should be defined for the same procedure for patients with significantly different needs.

- Care Episode Groups should be defined around sub-episodes within larger episodes of care.

- Care Episode Groups should include diagnostic episodes as well as treatment episodes.

DEFINING PATIENT CONDITION GROUPS AND CODES

The resources required to achieve appropriate outcomes for a patient during a particular episode of care will depend heavily on the specific needs of that patient and their ability to access and use different treatment options. Unfortunately, the risk adjustment systems that CMS and other payers are using today for both resource use measurement and payment have many serious weaknesses that can inappropriately penalize physicians who care for sicker patients and reward physicians who do not, and use of these flawed systems as part of MIPS and APMs could make it harder for higher-need patients to access appropriate care. In MACRA, Congress recognized that effective adjustment could not be done effectively using the data currently being collected, and so it required the creation of Patient Condition Groups.

In order for the Patient Condition Groups required under MACRA to solve the serious weaknesses with current methods of risk adjustment, they should be defined in the following ways:

- Patient Condition Groups should be defined based on differences in patient needs rather than ability to predict current spending levels.
- Patient Condition Groups should be defined using diagnostic information not captured in current diagnosis codes.
- Patient Condition Groups should be defined based on all of a patient's health problems that could affect costs and outcomes.
- Patient Condition Groups should be defined using patients' functional limitations as well as their medical conditions.
- Patient Condition Groups should be defined to consider the barriers patients face in accessing healthcare services.
- Patient Condition Groups should be defined so they complement Care Episode Groups.

DEFINING PATIENT RELATIONSHIP CATEGORIES AND CODES

There are serious weaknesses in the methods that CMS and other payers are using today to "attribute" patients to physicians and other healthcare providers. Congress wisely recognized that the current *retrospective* and *prospective* methods of attributing patients to physicians are fundamentally flawed and need to be improved. MACRA requires creation of a *concurrent* approach that enables physicians to state their relationship with the patient at the time a service is rendered using Patient Relationship Categories.

Congress provided a detailed starting point for defining Patient Relationship Categories by requiring they include the following types of relationships between patients and the physicians and other practitioners who provide their care:

(i) a physician (or other practitioner) who considers themself to have the primary responsibility for the general and ongoing care for the patient over extended periods of time;

(ii) a physician (or other practitioner) who considers themself to be the lead physician or practitioner and who furnishes items and services and coordinates care furnished by other physicians or practitioners for the patient during an acute episode;

(iii) a physician (or other practitioner) who furnishes items and services to the patient on a continuing basis during an acute episode of care, but in a supportive rather than a lead role;

(iv) a physician (or other practitioner) who furnishes items and services to the patient on an occasional basis, usually at the request of another physician or practitioner; or

(v) a physician (or other practitioner) who furnishes items and services only as ordered by another physician or practitioner.

In order to more accurately define the full range of relationships between physicians and patients, CMS should add the following three categories to the five Patient Relationship Categories already defined by Congress:

(vi) a physician (or other practitioner) who considers themself to have the primary responsibility for managing the care of a particular health condition (such as cancer) or a combination of health conditions (such as diabetes and coronary artery disease) over a period of one month or more.

(vii) a physician (or other practitioner) who works in close coordination with one or more other physicians to jointly manage the care of a particular health condition or combination of conditions over a period of one month or more.

(viii) a physician (or other practitioner) who takes the lead responsibility for determining a diagnosis for a patient's symptoms, or for verifying the accuracy of an existing diagnosis, utilizing the services of other physicians, practitioners, and providers as necessary.

MEASURING AND REPORTING ON RESOURCE USE

In addition to Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories, a fourth piece of information is essential to effective resource use measurement – identifying the physician who *ordered* a service, not just the physician who *delivered* the service. MACRA requires that the National Provider Identifier of the ordering physician or practitioner be included on the claims form if the service was ordered by a different physician or practitioner than the individual who delivered the service.

Information on the providers who ordered and delivered services should be used to divide measures of resource use within Care Episode Groups into four categories for each physician or other practitioner who indicates (through use of a Patient Relationship Category code)

that they are playing a lead or supportive role in a patient's care:

1. Services both *ordered and delivered* directly by the physician/practitioner playing the designated role in the patient's care.

2. Services delivered by *other physicians or providers* that are *integrally related* to the services delivered by the physician/practitioner playing the designated role.

3. Services delivered by other physicians or providers that resulted from orders or referrals from the physician/practitioner playing the designated role.

4. Services delivered by other providers that were related to services delivered or ordered by the physician/practitioner playing the designated role, but not directly delivered or ordered by that individual.

In addition, many physicians are providing a variety of high-value services to patients for which there is no direct payment under Medicare. Because resource use measures are being used to make or modify payments to physicians for their services, it is important to know all of the services that are being delivered as part of a patient's care. A calculation that does not include the time spent or costs incurred on these unpaid services is not a true measure of the resources used in delivering health care.

The only way to know what is really being done to achieve better value when a physician or other provider redesigns care and what resources will be needed to sustain that is to allow the provider to record the services that are being delivered without direct compensation. CMS needs to permit physicians and other providers to voluntarily submit claims forms describing *all services they deliver* even if those services are not currently eligible for payment under Medicare.

SUPPORTING THE DEVELOPMENT AND IMPLEMENTATION OF SUCCESSFUL ALTERNATIVE PAYMENT MODELS

MACRA explicitly indicates that one of the purposes of creating Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories is to support the development and implementation of Alternative Payment Models. The ability to bill for services using codes defining Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories could facilitate and dramatically accelerate the development of more innovative and effective approaches to Alternative Payment Models. However, these new codes could only be used to facilitate billing and payment under Alternative Payment Models if the codes are defined in ways that complement and support those Alternative Payment Models. Consequently, it is essential that CMS specifically seek input from physician groups, medical specialty societies, and others that are developing Alternative Payment Models (APMs), particularly the Physician-Focused Alternative Payment Models required under MACRA, as it works to define the Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories required under MACRA.

I. THE NEED FOR BETTER MEASURES OF RESOURCE USE

A. Accountability for Resource Use in MIPS and APMs

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) creates two alternative paths by which Medicare payments to physicians will evolve over the next decade – the Merit-Based Incentive Payment System (MIPS) and Alternative Payment Models (APMs). Physicians will be required to participate in MIPS unless they achieve a minimum threshold of participation in one or more APMs.[1]

A key goal of MACRA is to slow the growth in healthcare spending in more effective ways than the deeply flawed Sustainable Growth Rate (SGR) formula. To do this, both MIPS and APMs require physicians to take accountability for utilization and spending on healthcare services:

- Under MIPS, the standard amount that a physician is paid for each individual service provided to a Medicare beneficiary will be increased or decreased each year based on a "performance score" created from measures of the physician's quality of care, resource use, clinical improvement activities, and meaningful use of certified EHR technology. Resource use measures will represent 30% of the performance score beginning in 2021, and will represent up to 10-15% of the performance score in 2019 and 2020.

- MACRA requires that APMs either (a) improve the quality of care without increasing spending, (b) reduce spending without reducing the quality of care, or (c) improve the quality of care and reduce spending. In contrast to MIPS, APMs can be structured to give physicians additional resources or greater flexibility in using existing resources so that they can redesign care in ways that reduce total spending without harming patients or jeopardizing the financial viability of their practices.

B. Problems with Current Resource Use Measures

In their "value-based purchasing" and pay-for-performance systems, the Centers for Medicare and Medicaid Services (CMS) and private health plans currently use similar approaches to measure resource use and to hold physicians accountable for resource use. In general, the spending and resource use measures are being used to assign accountability to a *single* physician for *all* of the spending on *all* of the health care services received by a patient during a particular period of time, regardless of which physicians or other providers actually delivered those services. Statistical rules are used to *retrospectively attribute* responsibility to an individual physician for the spending on all of the services that a patient received during either an "episode of care" or a calendar year. Statistical formulas are also used to risk-adjust the spending amount attributed to each physician based on *health problems the patient had in previous years*, not the current problems the patient had when they received the services for which resource use is being measured.

The current methodologies for measuring spending during episodes of care, for attributing spending to physicians, and for risk adjusting spending measures have many serious weaknesses that have the potential to harm patients and to bankrupt healthcare providers, particularly small physician practices and hospitals. For example:[2]

- **Physicians cannot control all of the services and spending assigned to them under typical resource use measures.** In fact, *most* of the spending that is attributed to physicians in typical methodologies results from services delivered by *other* physicians.

- **Physicians are not attributed the spending for many services they do provide.** Most attribution systems fail to assign physicians the majority of services they delivered. Spending on complications and preventable conditions may be assigned to the physicians who *treated* the problems rather than those who may have *caused* them.

- **Many patients are not assigned to the physicians who are helping them address their health care needs.** In most attribution methodologies, a patient is only assigned to a physician if the patient has actually seen the physician for an office visit during the previous year, so patients whose healthcare problems are being well-managed by their physician may not be assigned to their own physician or to any physician at all.

- **Risk adjustment systems do not adequately adjust for differences in patient needs.** The risk adjustment methods used in most resource measurement systems do not effectively separate differences in patient needs from differences in the way providers deliver care. The risk adjustment systems also use *historical* information on patient health problems, not the most current information on health problems that affect the services patients need, which can penalize physicians and other providers who care for patients with many acute healthcare problems. Most risk adjustment systems give little or no consideration to factors other than health status that can affect patient needs, such as functional limitations and ability to access healthcare services.

C. Tools for Improving Resource Use Measurement Required by MACRA

Fortunately, Congress has recognized the serious problems described above, and MACRA requires the Department of Health and Human Services to develop and implement solutions. Section 101(f) of MACRA adds a new Section 1848(r) to the Social Security Act that requires creation of three new ways of classifying services and patients:

- **Care Episode Groups.** MACRA requires the creation of "care episode groups" that define the types of procedures or services furnished for particular clinical conditions or diagnoses. If properly designed, Care Episode Groups will enable far better measures of the kinds of services and costs physicians can control or influence than the total cost measures used in Medicare payment programs today.

- **Patient Relationship Categories.** MACRA requires the creation of "patient relationship categories" that define and distinguish the relationship and responsibility of a physician or applicable practitioner with a patient at the time of furnishing an item or service. If properly designed, Patient Relationship Categories will enable payments and accountability for spending and quality to be far more accurate than the retrospective statistical attribution methodologies used in Medicare payment programs today.

- **Patient Condition Groups.** MACRA requires the creation of "patient condition groups" based on a patient's chronic conditions, current health status, and recent significant history, such as hospitalization or surgery. If properly designed, Patient Condition Groups will enable far better risk adjustment and acuity stratification than the methods used in Medicare payment programs today.

Each of these new groups and categories will have an associated code that physicians will record on the claims they submit for payment beginning on January 1, 2018.

D. Input Required from Physicians and Other Stakeholders

The section of MACRA requiring the new codes is entitled "Collaborating With the Physician, Practitioner, and Other Stakeholder Communities to Improve Resource Use Measurement," and Congress was clearly serious about trying to ensure that the Department of Health and Human Services (HHS) and the Centers for Medicare and Medicaid Services (CMS) developed the details of these new groups, categories, and codes in a collaborative way with physicians and other stakeholders. MACRA requires HHS to undertake two separate rounds of input, each lasting 4 months, before finalizing the definitions of the Care Episode Groups and the Patient Condition Groups, and it requires a four-month period for obtaining input on the Patient Relationship Categories before they are finalized. The law explicitly requires HHS to use mechanisms other than traditional notice-and-comment rulemaking to obtain input, such as open door forums, town

hall meetings, and web-based forums.

As shown in the table on page 3, this input process began in the fall of 2015 and is scheduled to continue through the spring of 2017. The first round of input was solicited at the end of 2015 and beginning of 2016. Input on a draft list of Patient Relationship Categories will be solicited in the spring and summer of 2016, and input on a draft list of Care Episode Groups and Patient Condition Groups will be solicited at the end of 2016 and beginning of 2017, so that operational sets of codes can be finalized in 2017 in time for physicians to begin recording them on claims forms beginning on January 1, 2018.

E. Ensuring the Goals of MACRA Are Achieved

If Care Episode Groups, Patient Condition Groups, Patient Relationship Categories and the associated codes are designed appropriately, they can:

- solve decades-old problems both providers and payers have experienced in using healthcare claims data for performance measurement;

- eliminate the need to use problematic episode groupers, attribution systems, and risk adjustment methodologies in value-based payment programs; and

- dramatically improve the ability of both physicians and CMS to use healthcare claims data to design and implement Alternative Payment Models as well as to implement the Merit-Based Incentive Payment System.

However, the devil is in the details. The remainder of this report explains the requirements of MACRA in more detail and describes how these requirements should be implemented in the most effective ways.

- Section II describes how Care Episode Groups and codes should be defined;

- Section III describes how Patient Condition Groups and codes should be defined;

- Section IV describes how Patient Relationship Categories and codes should be defined;

- Section V describes additional improvements needed in measuring and reporting on resource use; and

- Section VI describes how to ensure that Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories support the development and implementation of successful Alternative Payment Models.

TIMETABLE FOR IMPLEMENTATION OF
IMPROVED RESOURCE USE MEASUREMENT

Deadline Under MACRA	Estimated Date(s)	HHS Actions Related to Care Episode Groups and Codes	HHS Actions Related to Patient Condition Groups and Codes	HHS Actions Related to Patient Relationship Categories and Codes
≤180 days after MACRA enactment	October 16, 2015	Post list of episode groups developed by CMS under Affordable Care Act on CMS website		
≥120 days after posting episode groups	October 16, 2015 to March 1, 2016	Accept suggestions from stakeholders on definitions of care episode groups	Accept suggestions from stakeholders on definitions of patient condition groups	
≤1 year after MACRA enactment	April 16, 2016			Post draft list of patient relationship categories and codes on CMS website
≥120 days after posting patient relationship categories and codes	April 16, 2016 to August 13, 2016			Actively seek comments on draft patient relationship categories and codes
≤270 days after end of comment period on care episode groups and patient condition groups	November 25, 2016	Post draft list of care episode codes on CMS website	Post draft list of patient condition codes on CMS website	
≥120 days after posting care episode and patient condition codes	November 25, 2016 to March 25, 2017	Actively seek input on draft care episode codes and definitions	Actively seek input on draft patient condition codes and definitions	
≤240 days after end of comment period on patient relationship categories	April 20, 2017			Post operational list of patient relationship categories and codes
≤270 days after end of second comment period on care episode and patient condition codes	December 20, 2017	Post operational list of care episode codes and definitions	Post operational list of patient condition codes and definitions	
January 1, 2018	January 1, 2018	Include care episode codes on claim forms	Include patient condition codes on claim forms	Include patient relationship category codes on claim forms
≤November 1 of each year	November 1, 2018	Issue revised list of care episode codes and definitions	Issue revised list of patient condition codes and definitions	Issue revised list of patient relationship categories and codes
	November 1, 2019	Issue revised list of care episode codes and definitions	Issue revised list of patient condition codes and definitions	Issue revised list of patient relationship categories and codes

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II.
DEFINING
CARE EPISODE GROUPS
AND CODES

A. The Problems With Episode Groupers

The Care Episode Groups and codes that MACRA requires in Section 1848(r) represent a fundamentally different and significantly better approach to defining and measuring episodes of care than the "episode grouper" that Congress had previously required CMS to develop when the Affordable Care Act added Section 1848(n)(9)(A) to the Social Security law. An episode grouper is a method of using the diagnosis codes and procedure codes that are recorded on claims forms in an attempt to retrospectively group claims into clinically-related episodes. Episode groupers are complex and highly error-prone because they try to determine the relationship between the services a patient has received long after those services have been delivered, using information from claims forms that were designed for billing purposes, not for defining clinical episodes.

A number of studies, including research commissioned by CMS, have identified the serious problems with episode groupers that use this approach. For example, a 2006 study by the Medicare Payment Advisory Commission found that two commonly used episode groupers, when applied to the same population of Medicare patients, calculated significantly different amounts of spending in episodes with similar names.[3] A 2008 study conducted by Acumen, LLC for the Centers for Medicare and Medicaid Services found that one of these episode groupers assigned the majority of a sample patient's spending to a Pneumonia episode, whereas the other grouper assigned the majority of the patient's spending to an Alzheimer's Disease episode.[4] A 2012 study conducted for the U.S. Bureau of Economic Analysis found that those same two episode groupers, when applied to a group of commercially insured patients, produced very different classifications of spending into episodes.[5]

In response to Section 1848(n)(9)(A), CMS developed two new episode grouper methodologies – the Episode Grouper for Medicare (EGM), which CMS is also referring to as "Method A," and a second methodology which CMS is describing as "Method B."[6] Both of these methodologies have been used to create reports for physicians as part of the 2014 Supplemental Quality and Resource Use Reports (QRURs). Although CMS has made available all of the codes and logic used to define the episodes, it has not released any information to enable an assessment of the validity or reliability of these methodologies and how they perform relative to other groupers.

However, no matter how carefully the new episode groupers have been constructed, the results they produce will inherently have errors – potentially serious errors – because they are based on procedure codes and diagnosis codes that do not contain sufficient infor-

mation to accurately determine the episode to which an individual service should be assigned, particularly for patients with multiple health problems and patients receiving multiple procedures during a short period of time.

Although resource use measures calculated using these imperfect grouper methodologies may provide helpful information to physicians in some cases, they will never be sufficiently accurate or reliable to use for defining Alternative Payment Models or for holding physicians accountable for resource use under the Merit-Based Incentive Payment System (MIPS). It would be inappropriate to use flawed grouper methodologies to determine that a physician is "inefficient" because the grouper erroneously assigns unrelated services to an episode of care the physician is managing, and it would be inappropriate to determine that a physician is "efficient" because services they deliver or order are erroneously assigned to episodes being managed by other physicians.

> *Resource use measures calculated using episode grouper methodologies will never be sufficiently accurate or reliable to use for defining Alternative Payment Models or for resource use measurement under the Merit-Based Incentive Payment System (MIPS)*

B. Using Care Episode Groups and Codes to Improve Episode Measures

Congress wisely recognized that the current *retrospective* approach to measuring resource use using episode groupers is fundamentally flawed and needs to be improved. What MACRA requires is a *concurrent* approach that enables physicians to determine, at the time a service is rendered, the care episode or episodes to which the service should be assigned based on the goal of the service and its relationship to other services that the patient is receiving. MACRA requires that Care Episode Groups be established taking into account "the patient's clinical problems *at the time items and services are furnished* during an episode of care, such as the clinical conditions or diagnoses, whether or not inpatient hospitalization occurs, and the principal procedures or services furnished" [emphasis added].

Although the definitions of episodes and the rules for assigning services to episodes that CMS has developed

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for its current grouper methodologies could be used as starting points for the definitions and logic for the Care Episode Groups required under MACRA, revisions are both desirable and appropriate because the episode definitions no longer need to be constrained by the limits of current procedural and diagnostic coding on claims forms. A physician should be able to assign a Care Episode Group code to a patient based on whatever criteria are appropriate for defining the Care Episode Group, rather than just what can be determined using CPT® and ICD codes. For example:

- Today, it is impossible to accurately define separate treatment episodes for different stages of cancer in an episode grouper because there is no way to accurately determine the stage of a patient's cancer from either procedure codes or diagnosis codes. However, if separate Care Episode Groups are defined based on stage of cancer, it would be a simple matter for the oncologist treating the cancer to choose the correct Care Episode Group code based on the stage of cancer.

- Today, it is impossible to accurately determine whether one patient is receiving more services than another patient for the same condition because the two patients responded differently to their initial treatment or for other reasons. However, Care Episode Group codes could be defined so that a physician could identify when a second line of therapy was given following the patient's failure to respond to initial treatment.

- Today, because of the uncertainty about the accuracy of diagnosis codes on claims forms for ambulatory services, the CMS groupers require the presence of the same diagnosis code on two separate outpatient Evaluation and Management Service claims for all but very basic health problems. However, Care Episode Group codes can enable physicians to assign a patient to the correct episode group based on a single visit or other outpatient service.

C. How Care Episode Groups Should Be Defined

In order for the Care Episode Groups required under MACRA to solve the serious weaknesses with current episode groupers, they should be defined in the following ways:

- **Care Episode Groups Should Be Defined Based on the Patient's Underlying Health Condition That is Being Treated, Not Just a Procedure Chosen for Treatment.** The vast majority of the episodes CMS has developed to date are defined around specific procedures, primarily hospital-based procedures, not the patient's underlying health problem that is being treated or managed. Although it is clearly important to ensure that all of the care during and following a hospital-based procedure is delivered as efficiently and effectively as possible, measuring episode spending only for specific procedures ignores the opportunity to reduce costs and improve outcomes by using different procedures and treatments and by performing procedures in lower-cost settings. For example, a knee or

hip arthroplasty is one way to treat knee or hip osteoarthritis, but many patients can achieve pain relief and improved mobility using non-surgical approaches while avoiding the inherent risks of surgery. Measuring resource use solely for the patients who receive surgery can unintentionally make physicians who do more surgeries on lower-risk patients look "more efficient" than those who only use surgery for patients for whom other alternatives have failed.

- **Separate Care Episode Groups Should Be Defined for the Same Procedure for Patients with Significantly Different Needs.** In the episodes that have been developed by CMS to date, there is only one episode definition for each type of procedure, despite the fact that in many cases, different combinations of services beyond the procedure itself will be needed for patients with different characteristics. The Inpatient Prospective Payment System used for Medicare payments to hospitals recognizes that the number and types of services needed to manage a patient's care during a hospitalization for a particular procedure will depend not only on the procedure itself, but on the number and severity of the patient's health problems, and so there are several levels of MS-DRGs for each type of procedure, with differing payments for each of the levels.[7] Since episodes of care are intended to define a more complete range of services than just the inpatient stay, and since differences in patient needs will result in greater differences in services during episodes that extend beyond a hospital stay, it does not make sense to have only one episode definition for major procedures.

  Measuring episode spending only for specific procedures ignores the opportunity to reduce costs and improve outcomes by using different procedures and treatments and by performing procedures in lower-cost settings.

  Although Patient Condition Groups could also be used to signal differences in patient needs instead of creating separate Care Episode Groups based on patient needs, it would be better to use the two types of codes in complementary ways. For patient characteristics that predictably result in very different service needs, separate Care Episode Groups and codes should be defined; then Patient Condition Groups and codes can be used to enable better risk adjustment within episodes based on patient characteristics that have smaller or less certain impacts on service needs.

- **Care Episode Groups Should Be Defined Around Sub-Episodes Within Larger Episodes of Care.** Although it is appropriate and desirable to examine resource use and outcomes for the full range of services a patient receives as part of their treatment for a condition, in many cases there is no one physician or health provider who delivers all of the services in the full episode of care, and there may be no physician who is able to

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supervise or coordinate all of those services. It would be much easier to improve overall efficiency in a care episode if the sources of inefficiencies can be effectively localized and if the impacts of changes in different areas can be measured separately.

♦ For example, many patients who are treated in a hospital will receive their post-acute care services not only in a different facility, but in a different community or different state. Although the inpatient and post-acute care services should be better coordinated and managed than they are today in order to improve resource use and outcomes across the full episode, services must also be effectively managed and coordinated within each portion of the episode by those who are delivering those services in order to achieve the best outcomes for the patient.

♦ Similarly, an overall episode of care should encompass both the initial procedure and the treatment of any complications of that procedure (e.g., a surgery and a readmission to treat a surgical site infection), and improvements to the overall episode can come from both reducing the number of complications and from improving the treatment of the complications when they occur. Since different physicians and hospitals may be involved in the initial procedure and the treatment of complications, those two portions of the overall episode should be measured separately as well as jointly.

While coordinated care across a full episode is certainly preferable to uncoordinated care, the mere fact that care is being coordinated does not make it good care if the individual components are of poor quality, so it is essential to improve the quality and value of each sub-episode in order to ensure the best overall value in an entire episode of care.

The need for better ways of breaking down large episodes into clinically meaningful sub-episodes can be seen in the 2014 Supplemental Quality and Resource Use Reports (QRURs) that CMS has been distributing based on data generated by the current episode groupers. The episode spending reports are only disaggregated using traditional payment categories – hospital stays, physician services, DME, etc. – and it is impossible to determine when in the course of an episode those services were delivered or why they were delivered, making the reports of relatively little use to physicians who want to improve the quality and reduce the cost of care.

In addition, MACRA indicates that the purpose of developing Care Episode Groups is to support Alternative Payment Models (APMs) as well as the Merit-Based Incentive Payment System (MIPS). In many cases, separate Alternative Payment Models will need to be defined for individual sub-episodes so that providers can have the flexibility needed to improve care within the sub-episode they are managing as well as work together effectively with other physicians and providers as part of a payment model focused on the overall episode. CMS has recognized the value of this approach in its Bundled Payments for Care Improvement Initiative by defining one payment model focused solely on the inpatient stay, one focused solely on the post-acute care services, and one model encompassing the full episode of care surrounding a hospitalization. Defining Care Episode Groups representing sub-episodes within larger episodes will facilitate the development of the kinds of Physician-Focused Alternative Payment Models that MACRA encourages.

● **Care Episode Groups Should Include Diagnostic Episodes as Well As Treatment Episodes.** All of the current condition-based episode definitions used in episode groupers implicitly presume that the patient's condition or need has been accurately diagnosed, and the procedural episodes also implicitly presume that the treatment is appropriate based on an accurate diagnosis of the patient's underlying condition. However, there is growing recognition that many treatments are unnecessary, inappropriate, or ineffective because the underlying diagnosis is inaccurate.[9] Inadequate payment to support the time and effort needed to develop a good diagnosis is one of the major culprits in erroneous diagnoses.[10] At the same time, it is well known that there is considerable overuse of testing and imaging in many aspects of the diagnostic process. Consequently, it will be important to define Care Episode Groups for the services used to establish a diagnosis in response to a patient's symptoms, not just Care Episode Groups based on the treatments delivered after a diagnosis has ostensibly been established.

III. DEFINING PATIENT CONDITION GROUPS AND CODES

A. Problems With Current Risk Adjustment Methodologies

The resources required to achieve appropriate outcomes for a patient during a particular episode of care will depend heavily on the specific needs of that patient and their ability to access and use different treatment options. Consequently, measures of resource use, quality, and outcomes need to be adjusted for differences in these factors.

Unfortunately, the risk adjustment systems that CMS and other payers are using today for both resource use measurement and payment have many serious weaknesses that can inappropriately penalize physicians who care for sicker patients and reward physicians who do not, and use of these flawed systems as part of MIPS and APMs could make it harder for higher-need patients to access appropriate care.[11]

- Most risk adjustment systems are designed to predict *spending* on patient care, not adjust for differences in patient *needs*. This can reinforce inappropriate spending, penalize efforts to reduce underuse, and cause providers to focus spending reduction efforts on the wrong patients.

- Most risk adjustment systems use *historical* information on patient characteristics, not the most current information on health problems that affect the services patients need. This can penalize providers who care for patients with many acute healthcare problems.

- The *same* risk score can be assigned to patients who need very *different* kinds of services from physicians in different specialties; this can distort spending comparisons and give physicians too few resources to adequately care for higher-need patients.

- Most risk adjustment systems only use diagnosis information currently recorded in claims data that does not completely or accurately measure *differences in the severity of patient health problems*.

- Most risk adjustment systems give little or no consideration to factors *other than health status* that can affect patient needs. For example, patients who have functional limitations are more likely to have higher healthcare spending, but measures of functional limitations are not included in typical risk adjustment systems.

In Section 1848(n)(6) of the Social Security Act, Congress required that reports on resource use be adjusted based on patient health status and patient characteristics "to the extent practicable." In MACRA, Congress recognized that effective adjustment could not be done effectively using the data currently being collected, and so it required the creation of Patient Condition Groups.

B. How Patient Condition Groups Should Be Defined

In order for the Patient Condition Groups required under MACRA to solve the serious weaknesses with current methods of risk adjustment, they should be defined in the following ways:

- **Patient Condition Groups Should Be Defined Based on Differences in Patient Needs Rather Than Their Ability to Predict Current Spending Levels.** Most current risk adjustment systems, such as Medicare's Hierarchical Condition Category (HCC) system, were designed to predict how much will be *spent on healthcare services* for a particular patient population, not to measure differences in the *extent of patient needs* or to predict differences in the outcomes of treatment. These risk adjustment systems use statistical regression analyses to assign a higher risk score to a patient if the amount that is *typically spent* on similar patients is higher, even if those patients did not actually *need* all of the services they received. Conversely, these statistical analyses inherently assign lower risk scores to patients who received fewer billable services, even if the patient needed more services or if the services that were delivered were not billable. Moreover, because these analyses are performed using claims data, they cannot consider patient characteristics that are not recorded in diagnosis codes or differences in services other than those described in procedure codes. As a result, using risk scores calculated as is done today can actually reinforce inappropriate spending, penalize efforts to reduce underuse, and cause providers to focus spending reduction efforts on the wrong patients. Patient Condition Groups should be defined based on input from physicians and other health care providers regarding the characteristics of patients that affect their need for healthcare services.

> *The risk adjustment systems that CMS and other payers are using today for both resource use measurement and payment have many serious weaknesses that can inappropriately penalize physicians who care for sicker patients and reward physicians who do not, and use of these flawed systems as part of MIPS and APMs could make it harder for higher-need patients to access appropriate care.*

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- **Patient Condition Groups Should be Defined Using Diagnostic Information Not Captured in Current Diagnosis Codes.** One reason that Patient Condition Group codes are needed in addition to diagnosis codes is that current diagnosis codes do not adequately distinguish aspects of some health conditions that can significantly affect the resources needed to treat or manage those conditions and/or the outcomes that can be achieved. For example, in addition to the *type* of cancer a patient has (e.g., breast, colon, lung, etc.), the *stage* of cancer (i.e., whether it has metastasized to other parts of the body) has a significant impact on how it is treated by oncologists and the outcomes that can be achieved for the patient. However, neither the ICD-9 nor ICD-10 diagnostic coding system has a method for recording the stage of cancer, only the type of cancer. Similarly, the ICD-10 coding system has no codes to distinguish the severity of a patient's heart failure, even though the severity of the condition has a significant impact on treatment costs and outcomes for heart failure patients. <u>Patient Condition Groups should be defined so that physicians can distinguish differences in patient needs, such as the severity of health conditions, that go beyond what is possible using diagnosis codes</u>.

- **Patient Condition Groups Should Be Defined Based on All of a Patient's Health Problems That Could Affect Costs and Outcomes.** Medicare's Hierarchical Condition Category (HCC) system is a *prospective* risk adjustment system that is based primarily or exclusively on whether a patient had *chronic* health conditions in the previous year, and it completely ignores the potential impact of any newly diagnosed health problems or recent acute conditions or treatments. Not surprisingly, *concurrent* risk adjustment systems that consider new health problems are better able to predict service utilization. <u>Patient Condition Groups should be defined with consideration for all of a patient's current and past health problems that could affect the number and type of services they need during a particular time period or episode of care.</u>

- **Patient Condition Groups Should Be Defined Using Patient Functional Limitations as Well as Medical Conditions**. A patient's functional limitations (e.g., inability to walk) can have an equal or greater effect on costs and outcomes as do their medical conditions. Patients who are unable to walk or drive or are unable to carry out activities of daily living will have greater difficulty caring for themselves and greater difficulty obtaining traditional office-based ambulatory care services, which can lead to increased use of more expensive healthcare services. For example, one analysis found that there were hospital admissions for 34% of Medicare beneficiaries who had functional limitations as well as chronic diseases, but there were admissions for only 20% of the Medicare beneficiaries who had 3 or more chronic conditions but no functional limitations. The researchers also found that the majority of the beneficiaries on whom Medicare spent the most had both chronic conditions and functional limitations.[12] However, since information about functional limitations is not captured effectively by standard diagnosis coding in claims data, it is not incorporated into most risk adjustment models. Another study found that the Medicare HCC risk adjustment model significantly under-predicted actual spending on the subset of patients with functional disabilities.[13] All of Medicare's current payment systems for post-acute care differentiate payments based on patients' functional status as well as their health problems, so it would be inappropriate to ignore functional status in measuring resource use around episodes that could potentially include the need for post-acute care services. <u>Patient Condition Groups should be defined with consideration of patients' functional limitations as well as their medical diagnoses</u>.

- **Patient Condition Groups Should Be Defined to Consider the Barriers Patients Face in Accessing Healthcare Services.** Having health insurance does not automatically assure that a patient can access the care they need. High deductibles or high cost-sharing levels may discourage individuals from seeking needed care or taking prescribed medications, which can result in avoidable complications and higher overall expenses that are outside the control of their physicians and other healthcare providers. For patients who live in rural areas, long distances to provider locations, lack of public transportation, etc. can also make it difficult for patients to obtain needed care regardless of the benefit design in their health insurance plan. <u>Patient Condition Groups should be defined with consideration of the barriers patients face in obtaining the most appropriate care for their health problems</u>.

- **Patient Condition Groups Should Be Defined So They Complement Care Episode Groups.** Patient Condition Groups should be defined in ways that complement rather than conflict with or duplicate Care Episode Groups. A patient characteristic that will have an important impact on the cost of treating one type of health condition may have little or no impact on the cost of treating other conditions. One of the many weaknesses with the Hierarchical Condition Category (HCC) system currently used by CMS for risk adjustment is that its categories are too aggregated for some types of episodes.[14] <u>Patient Condition Groups should be defined so that they can be disaggregated or aggregated based on the types of patient characteristics that will affect resource use in specific types of care episode groups</u>.

IV. DEFINING PATIENT RELATIONSHIP CATEGORIES AND CODES

A. Problems with Current Methods of Attributing Patients to Physicians

There are serious weaknesses in the methods that CMS and other payers are using today to "attribute" patients to physicians and other healthcare providers:[15]

- Many patients and the spending on their care are not attributed to any physician or other provider.

- Physicians are attributed the spending for many services that they did not provide or order. In fact, *most* of the spending that is attributed to physicians in typical attribution methodologies results from services delivered by *other* physicians.

- Physicians are not attributed the spending for many of the services they provide. Most attribution systems fail to assign physicians the majority of patients they did care for or the majority of services they delivered.

These problems arise because the attribution methodologies attempt to assign patients to physicians *retrospectively,* i.e., after the care has already been provided, using statistical calculations based on relative frequencies of office visits and other services, rather than based on the actual nature of the relationship between the physician and patient. So-called "prospective" attribution methodologies do not solve this problem; they simply make the retrospective calculation based on services delivered prior to the period being measured, and then assume that relationships between patients and physicians during the prior period will continue into the current period, even though that is frequently not true.

B. How Patient Relationship Categories Should Be Defined

Congress wisely recognized that the current *retrospective* and *prospective* methods of attributing patients to physicians are fundamentally flawed and need to be improved. MACRA requires creation of a *concurrent* approach that enables physicians to state their relationship with the patient at the time a service is rendered using Patient Relationship Categories. Once these Categories are defined and codes for them are recorded on claims forms, there will no longer be a need for either the problematic retrospective or prospective attribution methodologies that CMS and other payers are currently using. In Section 1848(r)(3)(B), Congress provided a detailed starting point for defining Patient Relationship Categories by requiring they include the following types of relationships between patients and the physicians and other practitioners who provide their care:

(i) a physician (or other practitioner) who considers themself to have the primary responsibility for the general and ongoing care for the patient over extended periods of time;

(ii) a physician (or other practitioner) who considers themself to be the lead physician or practitioner and who furnishes items and services and coordinates care furnished by other physicians or practitioners for the patient during an acute episode;

(iii) a physician (or other practitioner) who furnishes items and services to the patient on a continuing basis during an acute episode of care, but in a supportive rather than a lead role;

(iv) a physician (or other practitioner) who furnishes items and services to the patient on an occasional basis, usually at the request of another physician or practitioner; or

(v) a physician (or other practitioner) who furnishes items and services only as ordered by another physician or practitioner.

In order to more accurately define the full range of relationships between physicians and patients, **CMS should add the following three categories to the five Patient Relationship Categories already defined by Congress:**

(vi) **a physician (or other practitioner) who considers themself to have the primary responsibility for managing the care of a particular health condition (such as cancer) or a combination of health conditions (such as diabetes and coronary artery disease) over a period of one month or more.**

(vii) **a physician (or other practitioner) who works in close coordination with one or more other physicians to jointly manage the care of a particular health condition or combination of conditions over a period of one month or more.**

(viii) **a physician (or other practitioner) who takes the lead responsibility for determining a diagnosis for a patient's symptoms, or for verifying the accuracy of an existing diagnosis, utilizing the services of other physicians, practitioners, and providers as necessary.**

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V. MEASURING AND REPORTING ON RESOURCE USE

A. Distinguishing the Providers Who Order and Deliver Services

In addition to Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories, a fourth piece of information is essential to effective resource use measurement – identifying the physician who *ordered* a service, not just the physician who *delivered* the service. The current measures of resource use that are used by CMS are seriously flawed because they may assign accountability for a service to a physician who delivered the service even if they did not order it, and current resource use measures may fail to assign accountability for a service to the physician who ordered the service if it was delivered by a different physician or provider.

In the 2012 Quality and Resource Use Reports (QRURs) that CMS provided to physicians, it included "Drill Down Tables" as part of the Supplemental Exhibits that enabled a physician practice to distinguish between services that were ordered or referred by physicians outside of the practice from services that were ordered by physicians inside the practice.[16] However, this information is no longer being provided by CMS in the QRUR Supplemental Exhibits.

Congress recognized the importance of knowing which physician ordered a service as well as which physician delivered the service, and so in addition to the requirements in Section 1848(r)(4)(A) that claims forms include codes for Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories, Section 1848(r)(4)(B) requires that the National Provider Identifier of the ordering physician or practitioner be included on the claims form if the service was ordered by a different physician or practitioner than the individual who delivered the service. Although Medicare regulations already require this information, the statutory requirement in MACRA will ensure that this information is consistently available.

Information on the providers who ordered and delivered services should be used to divide measures of resource use within Care Episode Groups into four categories for each physician or other practitioner who indicates (through use of a Patient Relationship Category code) that they are playing a lead or supportive role in a patient's care (other than merely delivering a service in response to orders from other physicians or practitioners):[17]

1. Services both *ordered and delivered* directly by the physician/practitioner playing the designated role in the patient's care.

2. Services delivered by *other physicians or providers* that are *integrally related* to the services delivered by the physician/practitioner playing the designated role. For example, if a physician performs surgery on a patient in a hospital, then the payment to the hospital for the surgery and the payment to the anesthesiologist for the anesthesia services are integrally related to the payment to the surgeon for performing the surgery, since the surgery could not have been performed without the other services.

3. Services delivered by other physicians or providers that resulted from orders or referrals from the physician/practitioner playing the designated role. Resource use measures need to measure these services separately from the services that are ordered and delivered by a physician/practitioner because the physician/practitioner who orders a service generally has only limited control over how the service is actually performed and what resources may be used by the physician/practitioner who delivers it.

4. Services delivered by other providers that were related to services delivered or ordered by the physician/practitioner playing the designated role, but not directly delivered or ordered by that individual. For example, if a patient develops a surgical site infection after discharge from a hospital and is admitted to a different hospital for treatment of that infection, the surgeon who performed the surgery did not deliver or order the treatment for the infection, but the treatment for the infection is clearly related to the procedure that the surgeon performed. However, the responsibility for the fact that the related services were needed may have been shared between the physician/practitioner playing the designated role and other physicians or providers (e.g., a surgical site infection may develop because of poor wound care by a post-acute care provider), so it is appropriate to measure this aspect of resource use separately from the services that were directly delivered or ordered by the physician/practitioner playing the designated role.

> *Current measures of resource use are seriously flawed because they may assign accountability for a service to a physician who delivered the service even if they did not order it, and current resource use measures may fail to assign accountability for a service to the physician who ordered the service if it was delivered by a different physician or provider.*

B. Measuring Resource Use for Unpaid Services

Many physicians are providing a variety of high-value services to patients for which there is no direct payment under Medicare. For example, when a physician responds to a patient concern through a phone call, there is no payment to the physician for the time they spent on the phone call. That physician may have used fewer resources to successfully address the patient's need than a physician who would ask a similar patient to come in to the office for a visit or a physician who would tell the patient to go to a hospital emergency department, but the fact that the physician was not paid by Medicare does not mean that no resources at all were expended on the patient's care. A calculation that does not include the time spent or costs incurred on these unpaid services is not a true measure of the resources used in delivering health care.

> *The fact that a physician was not paid by Medicare does not mean that no resources at all were expended on the patient's care. A calculation that does not include the time spent or costs incurred on unpaid services is not a true measure of the resources used in delivering health care.*

Moreover, because CMS is using the resource use measures to make or modify payments to physicians for their services, it is important to know all of the services that are being delivered as part of a patient's care. For example, in its Comprehensive Care for Joint Replacement (CJR) Program, CMS is planning to adjust the annual payment budgets based on the spending levels achieved by all participating providers. If a physician, hospital, or post-acute care provider develops a new type of service (e.g., a new type of home-based rehabilitation service) that is not currently billable to Medicare and uses that service to reduce spending on billable services, the surplus under the CJR program would enable the provider to cover the costs of the new type of service. However, it is inappropriate for CMS to then reduce the payment budget for the episode to the amount that the provider is spending on *billable* services as it is planning to do in the CJR program; that would mean the provider would no longer be able to afford to deliver the unbillable service, even though that was what allowed the overall spending to be reduced in the first place.[18]

The only way to know what is really being done to achieve better value when a physician or other provider redesigns care and the only way to know what level of resources will be needed to sustain the improved services is to allow the provider to record how many and what types of services are being delivered without direct compensation. **CMS should permit physicians and other providers to voluntarily submit claims forms describing** *all services they deliver* **even if those services are not currently eligible for payment under Medicare.** In many cases, there are CPT codes available to describe these services even though Medicare does not pay for them, so it would be feasible for physicians to record when these services were provided. However, submission of this information should be voluntary, not required, since there would be an administrative cost to the physician for which he or she would receive no compensation except as part of an appropriately-designed Alternative Payment Model.

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VI. SUPPORTING DEVELOPMENT AND IMPLEMENTATION OF SUCCESSFUL ALTERNATIVE PAYMENT MODELS

MACRA explicitly indicates that one of the purposes of creating Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories is to support the development and implementation of Alternative Payment Models.

Just as most current resource use measurement systems are based on problematic retrospective episode grouper and attribution methodologies, most current Alternative Payment Models being implemented by CMS and other payers are based on problematic retrospective attribution and reconciliation methodologies because there are not adequate ways for physicians to signal that a patient is receiving services that are to be supported by a specific payment model. The ability to bill for services using codes defining Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories could facilitate and dramatically accelerate the development of more innovative and effective approaches to Alternative Payment Models. For example, a physician who is willing to accept a bundled payment for all of the services included in a Care Episode Group could bill Medicare for that bundled payment (or trigger the calculation of an episode budget for the services) using the code defined for that Care Episode Group, and the physician could indicate that they are managing all of the care during that episode by recording the appropriate Patient Relationship Category code. The amount of the payment could be adjusted based on the patient's needs using one or more Patient Condition Group codes that the physician records in conjunction with the Care Episode Group code.

However, these new codes could only be used to facilitate billing and payment under Alternative Payment Models if the codes are defined in ways that complement and support those Alternative Payment Models. Consequently, it is essential that CMS specifically seek input from physician groups, medical specialty societies, and others that are developing Alternative Payment Models (APMs), particularly the Physician-Focused Alternative Payment Models required under MACRA, as it works to define the Care Episode Groups, Patient Condition Groups, and Patient Relationship Categories required under MACRA.

ENDNOTES

1. For a more detailed description of the requirements in MACRA related to MIPS and APMs, see Miller H. *Implementing Alternative Payment Models Under MACRA: How the Federal Government Can Accelerate Successful Health Care Payment Reform*. Center for Healthcare Quality and Payment Reform. January 2016. Available at
http://www.chqpr.org/downloads/ImplementingAPMsUnderMACRA.pdf

2. For a more detailed explanation of these problems with current episode groupers, attribution systems, and risk adjustment methodologies, see Miller H. *Measuring and Assigning Accountability for Healthcare Spending*. Center for Healthcare Quality and Payment Reform. August 2014. Available at
http://www.chqpr.org/downloads/AccountabilityforHealthcareSpending.pdf.

3. Medicare Payment Advisory Commission. June 2006 Report to the Congress: Increasing the value of Medicare. Chapter 1: Using episode groupers to assess physician resource use.

4. MaCurdy T, Kerwin J, et al. Evaluating the functionality of the Symmetry ETG and Medstat MEG software in forming episodes of care using Medicare data. Acumen LLC. August 2008.

5. Rosen A, Liebman E, Aizcorbe A, Cutler DM. Comparing commercial systems for characterizing episodes of care. U.S. Bureau of Economic Analysis Working Paper Series. June 2012.

6. More information on the CMS episode groupers is available at
https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-Feedback.html

7. CMS has stated in the past that defining clinically meaningful groupings of patients in DRGs has been essential for helping providers manage costs effectively without harming patients. "Because the DRGs were developed to group clinically similar patients, an extremely important means of communication between the clinical and financial aspects of care was created. DRGs provided administrators and physicians with a meaningful basis for evaluating both the process of providing care and the associated financial impacts. Development of care pathways by DRG and profit-and-loss reports by DRG product lines became commonplace. With the adoption of these new management methods, length of stay and the use of ancillary services dropped dramatically...The vast majority of modifications to the DRGs since the inception of the Medicare inpatient hospital prospective payment system ... have almost always been the result of clinicians identifying specific types of patients with unique needs...Central to the success of the Medicare inpatient hospital prospective payment system is that DRGs have remained a clinical description of why the patient required hospitalization." 66 Federal Register 22668, May 4, 2001.

8. Information on the Quality and Resource Use Reports (QRURs) is available at
https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2014-QRUR.html

9. Balogh EP, Miller BT, Ball JR. *Improving Diagnosis in Health Care*. Institute of Medicine; The National Academies of Sciences, Engineering, and Medicine. 2015.

10. Miller HD. *How Healthcare Payment Systems and Benefit Designs Can Support More Accurate Diagnosis.* Center for Healthcare Quality and Payment Reform 2015. Available at:
http://www.chqpr.org/downloads/HowHealthcarePaymentSystemsCanSupportAccurateDiagnosis.pdf

11. For a more detailed discussion of the problems with current risk adjustment systems, see Miller H. *Measuring and Assigning Accountability for Healthcare Spending*. Center for Healthcare Quality and Payment Reform. August 2014. Available at:
http://www.chqpr.org/downloads/AccountabilityforHealthcareSpending.pdf.

12. Komisar HL, Feder J. Transforming care for Medicare beneficiaries with chronic conditions and long-term care needs: coordinating care across all services. Scan Foundation and Georgetown University. October 2011. Available at:
http://www.thescanfoundation.org/sites/default/files/Georgetown_Trnsfrming_Care.pdf.

13. Noyes K, Liu H, Temkin-Greener H. Medicare capitation model, functional status, and multiple comorbidities: model accuracy. Am J Manag Care. 2008 October; 14 (10): 679-690.

14. For example, in the 2014 version of the Medicare HCC risk adjustment system, a patient with colon cancer would have the same risk score as a patient who had a stroke, but one would not expect a patient with colon cancer to receive the same types of services from neurologists, cardiologists, and physiatrists as would a patient with a stroke.

15. For a more detailed discussion of the problems with current attribution systems, see Miller H. *Measuring and Assigning Accountability for Healthcare Spending*. Center for Healthcare Quality and Payment Reform. August 2014. Available at
http://www.chqpr.org/downloads/AccountabilityforHealthcareSpending.pdf.

16. A sample of the Drill Down Tables in the 2012 Supplemental QRURs is available at
https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Episode-Costs-and-Medicare-Episode-Grouper.html

17. A more detailed discussion of how to structure resource use measures is available in Miller H. *Measuring and Assigning Accountability for Healthcare Spending*. Center for Healthcare Quality and Payment Reform. August 2014. Available at http://www.chqpr.org/downloads/AccountabilityforHealthcareSpending.pdf.

18. For a more detailed discussion of this problem, see Miller H. *Bundling Badly: The Problems With Medicare's Proposal for Comprehensive Care for Joint Replacement*. Center for Healthcare Quality and Payment Reform. 2015. Available at:
http://www.chqpr.org/downloads/BundlingBadly.pdf

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APPENDIX
PROVISIONS OF MACRA REGARDING RESOURCE USE MEASUREMENT

MEDICARE ACCESS AND CHIP REAUTHORIZATION ACT OF 2015

TITLE I—SGR REPEAL AND MEDICARE PROVIDER PAYMENT MODERNIZATION

SEC. 101. REPEALING THE SUSTAINABLE GROWTH RATE (SGR) AND IMPROVING MEDICARE PAYMENT FOR PHYSICIANS' SERVICES.

* * *

(f) COLLABORATING WITH THE PHYSICIAN, PRACTITIONER, AND OTHER STAKEHOLDER COMMUNITIES TO IMPROVE RESOURCE USE MEASUREMENT

Section 1848 of the Social Security Act (42 U.S.C. 1395w–4), as amended by subsection (c), is further amended by adding at the end the following new subsection:

Section 1848 (r) COLLABORATING WITH THE PHYSICIAN, PRACTITIONER, AND OTHER STAKEHOLDER COMMUNITIES TO IMPROVE RESOURCE USE MEASUREMENT.—

(1) IN GENERAL.—In order to involve the physician, practitioner, and other stakeholder communities in enhancing the infrastructure for resource use measurement, including for purposes of the Merit-based Incentive Payment System under subsection (q) and alternative payment models under section 1833(z), the Secretary shall undertake the steps described in the succeeding provisions of this subsection.

(2) DEVELOPMENT OF CARE EPISODE AND PATIENT CONDITION GROUPS AND CLASSIFICATION CODES.—

(A) IN GENERAL.—In order to classify similar patients into care episode groups and patient condition groups, the Secretary shall undertake the steps described in the succeeding provisions of this paragraph.

(B) PUBLIC AVAILABILITY OF EXISTING EFFORTS TO DESIGN AN EPISODE GROUPER.—Not later than 180 days after the date of the enactment of this subsection, the Secretary shall post on the Internet website of the Centers for Medicare & Medicaid Services a list of the episode groups developed pursuant to subsection (n)(9)(A) and related descriptive information.

(C) STAKEHOLDER INPUT.—The Secretary shall accept, through the date that is 120 days after the day the Secretary posts the list pursuant to subparagraph (B), suggestions from physician specialty societies, applicable practitioner organizations, and other stakeholders for episode groups in addition to those posted pursuant to such subparagraph, and specific clinical criteria and patient characteristics to classify patients into—

(i) care episode groups; and

(ii) patient condition groups.

(D) DEVELOPMENT OF PROPOSED CLASSIFICATION CODES.—

(i) IN GENERAL.—Taking into account the information described in subparagraph (B) and the information received under subparagraph (C), the Secretary shall—

(I) establish care episode groups and patient condition groups, which account for a target of an estimated 1⁄2 of expenditures under parts A and B (with such target increasing over time as appropriate); and

(II) assign codes to such groups.

(ii) CARE EPISODE GROUPS.—In establishing the care episode groups under clause (i), the Secretary shall take into account—

(I) the patient's clinical problems at the time items and services are furnished during an episode of care, such as the clinical conditions or diagnoses, whether or not inpatient hospitalization occurs, and the principal procedures or services furnished; and

(II) other factors determined appropriate by the Secretary.

(iii) PATIENT CONDITION GROUPS.—In establishing the patient condition groups under clause (i), the Secretary shall take into account—

(I) the patient's clinical history at the time of a medical visit, such as the patient's combination of chronic conditions, current health status, and recent significant history (such as hospitalization and major surgery during a previous period, such as 3 months); and

(II) other factors determined appropriate by the Secretary, such as eligibility status under this title (including eligibility under section 226(a), 226(b), or 226A, and dual eligibility under this title and title XIX).

(E) DRAFT CARE EPISODE AND PATIENT CONDITION GROUPS AND CLASSIFICATION CODES.—Not later than 270 days after the end of the comment period described in subparagraph (C), the Secretary shall post on the Internet website of the Centers for Medicare & Medicaid Services a draft list of the care episode and patient condition codes established under subparagraph (D) (and the criteria and characteristics assigned to such code).

(F) SOLICITATION OF INPUT.—The Secretary shall seek, through the date that is 120 days after the Secretary posts the list pursuant to subparagraph (E), comments from physician specialty societies, applicable practitioner organizations, and other stakeholders, including representatives of individuals entitled to benefits under part A or enrolled under this part, regarding the care episode and patient condition groups (and codes) posted under subparagraph (E). In seeking such comments, the Secretary shall use one or more mechanisms (other than notice and comment rulemaking) that may include use of open door forums, town hall meetings, or other appropriate mechanisms.

(G) OPERATIONAL LIST OF CARE EPISODE AND PATIENT CONDITION GROUPS AND CODES.—Not later than 270 days after the end of the comment period described in subparagraph (F), taking into account the comments received under such subparagraph, the Secretary shall post on the Internet website of the Centers for Medicare & Medicaid Services an operational list of care episode and patient condition codes (and the criteria and characteristics assigned to such code).

(H) SUBSEQUENT REVISIONS.—Not later than November 1 of each year (beginning with 2018), the Secretary shall, through rulemaking, make revisions to the operational lists of care episode and patient condition codes as the Secretary determines may be appropriate. Such revisions may be based on experience, new information developed pursuant to subsection (n)(9)(A), and input from the physician specialty societies, applicable practitioner organizations, and other stakeholders, including representatives of individuals entitled to benefits under part A or enrolled under this part.

(3) ATTRIBUTION OF PATIENTS TO PHYSICIANS OR PRACTITIONERS.—

(A) IN GENERAL.—In order to facilitate the attribution of patients and episodes (in whole or in part) to one or more physicians or applicable practitioners furnishing items and services, the Secretary shall undertake the steps described in the succeeding provisions of this paragraph.

(B) DEVELOPMENT OF PATIENT RELATIONSHIP CATEGORIES AND CODES.—The Secretary shall develop patient relationship categories and codes that define and distinguish the relationship and responsibility of a physician or applicable practitioner with a patient at the time of furnishing an item or service. Such patient relationship categories shall include different relationships of the physician or applicable practitioner to the patient (and the codes may reflect combinations of such categories), such as a physician or applicable practitioner who—

(i) considers themself to have the primary responsibility for the general and ongoing care for the patient over extended periods of time;

(ii) considers themself to be the lead physician or practitioner and who furnishes items and services and coordinates care furnished by other physicians or practitioners for the patient during an acute episode;

(iii) furnishes items and services to the patient on a continuing basis during an acute episode of care, but in a supportive rather than a lead role;

(iv) furnishes items and services to the patient on an occasional basis, usually at the request of another physician or practitioner; or

(v) furnishes items and services only as ordered by another physician or practitioner.

(C) DRAFT LIST OF PATIENT RELATIONSHIP CATEGORIES AND CODES.—Not later than one year after the date of the enactment of this subsection, the Secretary shall post on the Internet website of the Centers for Medicare & Medicaid Services a draft list of the patient relationship categories and codes developed under subparagraph (B).

(D) STAKEHOLDER INPUT.—The Secretary shall seek, through the date that is 120 days after the Secretary posts the list pursuant to subparagraph (C), comments from physician specialty societies, applicable practitioner organizations, and other stakeholders, including representatives of individuals entitled to benefits under part A or enrolled under this part, regarding the patient relationship categories and codes posted under subparagraph (C). In seeking such comments, the Secretary shall use one or more mechanisms (other than notice and comment rulemaking) that may include open door

forums, town hall meetings, web-based forums, or other appropriate mechanisms.

(E) OPERATIONAL LIST OF PATIENT RELATIONSHIP CATEGORIES AND CODES.—Not later than 240 days after the end of the comment period described in subparagraph (D), taking into account the comments received under such subparagraph, the Secretary shall post on the Internet website of the Centers for Medicare & Medicaid Services an operational list of patient relationship categories and codes.

(F) SUBSEQUENT REVISIONS.—Not later than November 1 of each year (beginning with 2018), the Secretary shall, through rulemaking, make revisions to the operational list of patient relationship categories and codes as the Secretary determines appropriate. Such revisions may be based on experience, new information developed pursuant to subsection (n)(9)(A), and input from the physician specialty societies, applicable practitioner organizations, and other stakeholders, including representatives of individuals entitled to benefits under part A or enrolled under this part.

(4) REPORTING OF INFORMATION FOR RESOURCE USE MEASUREMENT.—Claims submitted for items and services furnished by a physician or applicable practitioner on or after January 1, 2018, shall, as determined appropriate by the Secretary, include—

(A) applicable codes established under paragraphs (2) and (3); and

(B) the national provider identifier of the ordering physician or applicable practitioner (if different from the billing physician or applicable practitioner).

(5) METHODOLOGY FOR RESOURCE USE ANALYSIS.—

(A) IN GENERAL.—In order to evaluate the resources used to treat patients (with respect to care episode and patient condition groups), the Secretary shall, as the Secretary determines appropriate—

(i) use the patient relationship codes reported on claims pursuant to paragraph (4) to attribute patients (in whole or in part) to one or more physicians and applicable practitioners;

(ii) use the care episode and patient condition codes reported on claims pursuant to paragraph (4) as a basis to compare similar patients and care episodes and patient condition groups; and

(iii) conduct an analysis of resource use (with respect to care episodes and patient condition groups of such patients).

(B) ANALYSIS OF PATIENTS OF PHYSICIANS AND PRACTITIONERS.— In conducting the analysis described in subparagraph (A)(iii) with respect to patients attributed to physicians and applicable practitioners, the Secretary shall, as feasible—

(i) use the claims data experience of such patients by patient condition codes during a common period, such as 12 months; and

(ii) use the claims data experience of such patients by care episode codes—

(I) in the case of episodes without a hospitalization, during periods of time (such as the number of days) determined appropriate by the Secretary; and

(II) in the case of episodes with a hospitalization, during periods of time (such as the number of days) before, during, and after the hospitalization.

(C) MEASUREMENT OF RESOURCE USE.—In measuring such resource use, the Secretary—

(i) shall use per patient total allowed charges for all services under part A and this part (and, if the Secretary determines appropriate, part D) for the analysis of patient resource use, by care episode codes and by patient condition codes; and

(ii) may, as determined appropriate, use other measures of allowed charges (such as subtotals for categories of items and services) and measures of utilization of items and services (such as frequency of specific items and services and the ratio of specific items and services among attributed patients or episodes).

(D) STAKEHOLDER INPUT.—The Secretary shall seek comments from the physician specialty societies, applicable practitioner organizations, and other stakeholders, including representatives of individuals entitled to benefits under part A or enrolled under this part, regarding the resource use methodology established pursuant to this paragraph. In seeking comments the Secretary shall use one or more mechanisms (other than notice and comment rulemaking) that may include open door forums, town hall meetings, web-based forums, or other appropriate mechanisms.

(6) IMPLEMENTATION.—To the extent that the Secretary contracts with an entity to carry out any part of the provisions of this subsection, the Secretary may not contract with an entity or an entity with a subcontract if the entity or subcontracting entity currently makes recommendations to the Secretary on relative values for services under the fee schedule for physicians' services under this section.

(7) LIMITATION.—There shall be no administrative or judicial review under section 1869, section 1878, or otherwise of—

    (A) care episode and patient condition groups and codes established under paragraph (2);

    (B) patient relationship categories and codes established under paragraph (3); and

    (C) measurement of, and analyses of resource use with respect to, care episode and patient condition codes and patient relationship codes pursuant to paragraph (5).

(8) ADMINISTRATION.—Chapter 35 of title 44, United States Code, shall not apply to this section.

(9) DEFINITIONS.—In this subsection:

    (A) PHYSICIAN.—The term 'physician' has the meaning given such term in section 1861(r)(1).

    (B) APPLICABLE PRACTITIONER.—The term 'applicable practitioner' means—

        (i) a physician assistant, nurse practitioner, and clinical nurse specialist (as such terms are defined in section 1861(aa)(5)), and a certified registered nurse anesthetist (as defined in section 1861(bb)(2)); and

        (ii) beginning January 1, 2019, such other eligible professionals (as defined in subsection (k)(3)(B)) as specified by the Secretary.

(10) CLARIFICATION.—The provisions of sections 1890(b)(7) and 1890A shall not apply to this subsection.

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