

# **CMS Report to Congress**

## **Assessing the Feasibility of Extending the Hospital Acquired Conditions (HAC) IPPS Payment Policy to Non-IPPS Settings**

**December 2012**

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# EXECUTIVE SUMMARY

## Introduction and Purpose

Section 3008(b) of the Affordable Care Act of 2010, Public Law 111-148 requires that the Secretary of Health and Human Services “conduct a study on expanding the healthcare acquired conditions policy under subsection (d)(4)(D) of section 1886 of the Social Security Act (42 U.S.C. 1395ww) to payments made to other facilities under the Medicare program under Title XVIII of the Social Security Act.” The statute says that the study “shall include an analysis of how such policies could impact quality of patient care, patient safety, and spending under the Medicare program.” Furthermore, the statute requires “the Secretary ... submit to Congress a report containing the results of the study ... together with recommendations for such legislation and administrative action as the Secretary determines appropriate,” not later than January 1, 2012.

This report focuses on the feasibility of extending the current case-based Medicare Hospital Acquired Condition (HAC) policy under section 1886(d)(4)(D) of the Act to non-IPPS facilities, including inpatient rehabilitation facilities (IRFs), long-term care hospitals (LTCHs), hospital outpatient departments (HOPDs), other hospitals excluded from the Inpatient Prospective Payment System, skilled nursing facilities (SNFs), ambulatory surgical centers (ASCs), and health clinics. The report describes the HAC program, summarizes the findings of the study that RTI International<sup>1</sup> conducted under a contract with the Centers for Medicare & Medicaid Services (CMS), and presents the Secretary’s recommendations. These recommendations include development of additional measures of conditions acquired in a variety of health care settings, in alignment with the National Quality Strategy and Inpatient Quality Reporting Program, and exploration of other payment policies that help reduce the occurrence of these conditions.

## The Medicare Hospital Acquired Condition (HAC) Payment Provision

The HAC policy in the Social Security Act requires that Inpatient Prospective Payment System (IPPS) hospitals indicate, for certain MS-DRGs, whether certain secondary conditions that could “reasonably have been prevented through the application of evidence-based guidelines” were present on admission (POA) or acquired during the hospitalization (an HAC). Hospitals indicate whether conditions are POA using “POA indicators”. Since October 2008, Medicare has not assigned an inpatient hospital discharge to a higher paying MS-DRG if the condition is not POA and the condition is the only reason why the discharge would be assigned

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<sup>1</sup> Bernard, S., Dalton, K., Lenfestey, N., Jarrett, N., Nguyen, K., Sorensen, A., and West, N. *Interim Study to Support a CMS Report to Congress: Assess Feasibility of Extending the Hospital-Acquired Conditions Present on Admission IPPS Payment Policy to non-IPPS Payment Environments*, RTI International, February 2012. This study is, hereafter, referred to as the RTI study. (It is attached as Appendix C.)

to the higher paying MS-DRG. The HAC policy under section 1886(d)(4)(D) is “case based,” meaning that CMS is required to identify *specific discharges* meeting the definitions of an HAC; potential reductions in the payment may apply only to the specific discharge when an HAC occurs. By placing financial responsibility for an HAC on the hospital, the policy promotes the delivery of better quality, safer care by decreasing both preventable adverse events and costs for Medicare.

### **Summary of the RTI Study**

In the RTI study, healthcare-acquired conditions (HCACs) are adverse conditions that occur as the result of care in healthcare settings *other than hospitals paid under the Medicare IPPS*; the HCAC program refers to *extension* of HAC payment policy to other healthcare settings. The scope of the RTI study of the feasibility of creating a HCAC program is defined by the following considerations. First, RTI considered both the selected and previously-considered candidate HACs and medical conditions that are potentially appropriate to the targeted facilities. Second, potential HCAC conditions were limited to those that result in a higher, identifiable payment for the stay or encounter when it occurs. This also means that the HCAC and the payment increase due to the HCAC must be identifiable from data recorded on the claim. Third, in order to be consistent with the HAC policy under section 1886(d)(4)(D), HCACs must be reasonably preventable through the application of evidence-based guidelines (EBGs). Fourth, an HCAC must be attributable to the facility where it occurred. Finally, the HCAC should be expected to manifest itself during the encounter or stay.

Using both qualitative and quantitative research methods, RTI found that there are numerous challenges to extending the current case-based IPPS HAC payment provision to the types of facilities listed in the Affordable Care Act. While RTI found that the conditions are potentially clinically appropriate, extending payment aspects of the program is less readily accomplished. RTI concluded that the only facility type where at least some of the studied conditions were clinically applicable, and the prospective payment system was amenable to the HAC payment provisions, is the LTCH (because of similarities between the LTCH Prospective Payment System and IPPS).

Table 3 in this report is a concise summary of RTI findings. HAC program criteria are satisfied in IPPS facilities except for attribution (the likelihood that an HCAC would manifest during the stay/encounter). Attribution of conditions with latency periods may present a problem in IPPS hospitals because the average length of stay is relatively short (three to four days). In general, attribution may be less of a problem in settings where average lengths of stay exceed those seen in the IPPS setting, such as LTCHs, IRFs, and SNFs. But extending the HAC program to these settings poses other challenges.

Neither CMS claims nor the IRF Patient Assessment Instrument (IRF-PAI) are sufficient for complete reporting of secondary diagnoses in IRFs. Modifications to the IRF-PAI would be needed to implement a case-based HCAC payment provision. Furthermore, HCACs occurring in an IRF may result in a readmission to the acute-care hospital, for which HCACs would result in higher downstream costs rather than higher costs associated with the IRF stay. In SNFs, many of the relevant HACs are serious events that would result in hospital readmission – thus resulting in lower SNF (per diem) payments for the stay, although creating additional downstream Medicare payments for that spell of illness. Where readmission does not occur, some HCACs could be expected to increase Medicare SNF payments by moving the patient to a higher paying resource utilization group (RUG) and increase length of stay. RTI notes that study of whether the SNF prospective payment system could be used to distinguish between an HCAC and other complications, in order to identify HCAC-related payment increments on SNF claims, is needed.

## **Recommendations**

This Report to Congress concludes with three recommendations: (1) HACs and HCACs take priority in quality measurement and reporting programs in various health care settings, where the authority for such programs exist and where Congress may choose to create additional programs; (2) setting-specific HCAC quality measures for the facilities discussed in this report be developed as appropriate; and (3) further exploration of other payment policies that create incentives to reduce HACs be undertaken, but that HAC policy not be extended to other facilities at this time. Prioritization of HACs and HCACs in various health care settings is in alignment with the National Quality Strategy and Inpatient Quality Reporting Program. Newly developed measures should be evidence-based, and accessible and meaningful to patients, providers and purchasers, patient-centered, and allow for measurement across the spectrum of care, independent of care transitions. As new quality reporting programs develop and expand, and as providers become accustomed to the requirements and methodology for reporting data, it will become possible to look beyond quality reporting to payment based on measure performance. Such payment reforms could include a variety of methods, including payment based on HAC rates or the incorporation of HAC performance results into value-based purchasing programs that may be developed in the future.

## INTRODUCTION

This Report to Congress is the Secretary's response to Section 3008(b) of the Affordable Care Act of 2010, Public Law 111-148. Under the statute, "the Secretary of Health and Human Services shall conduct a study on expanding the healthcare acquired conditions policy under subsection (d)(4)(D) of section 1886 of the Social Security Act (42 U.S.C. 1395ww) to payments made to other facilities under the Medicare program under Title XVIII of the Social Security Act." The statute lists types of facilities that the Secretary's study must include: inpatient rehabilitation facilities (IRFs), long-term care hospitals (LTCHs), hospital outpatient departments (HOPDs), other hospitals excluded from the Inpatient Prospective Payment System (IPPS)<sup>2</sup>, skilled nursing facilities (SNFs), ambulatory surgical centers (ASCs), and health clinics<sup>3</sup>. "Such study shall include an analysis of how such policies could impact quality of patient care, patient safety, and spending under the Medicare program." The statute further requires that "the Secretary ... submit to Congress a report containing the results of the study ... together with recommendations for such legislation and administrative action as the Secretary determines appropriate," not later than January 1, 2012.

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<sup>2</sup> Other hospitals excluded from IPPS are: cancer hospitals (CA), Children's Hospitals (CH), Maryland waiver hospitals (MD), and Inpatient Psychiatric facilities (IPFs). Under section 1861(e), critical access hospitals (CAHs) are excluded from the term "hospital" unless the context otherwise requires. However, because we believe the care provided in CAHs is comparable to the care furnished in other hospitals excluded from the IPPS, for purposes of this report, we will also consider CAHs to be acute-care hospitals excluded from IPPS. Department of Defense (DOD) hospitals and Department of Veteran Affairs (VA) hospitals are not addressed in this Report to Congress because Medicare does not make payments to DOD and VA hospitals. In addition, Medicare does not reimburse religious nonmedical health care institutions (RNHCIs) for medical care because these institutions do not provide medical care and, therefore, this report also does not address them.

<sup>3</sup> Health clinics include Federally Qualified Health Centers (FQHCs) and Rural Health Centers (RHCs).

This report describes the Hospital Acquired Condition (HAC) program and summarizes the findings of the mandated study that RTI International<sup>4</sup> conducted under CMS contract (attached as Appendix C). It also contains the Secretary's recommendations.

## **THE MEDICARE HOSPITAL ACQUIRED CONDITION (HAC) PAYMENT PROVISION UNDER SECTION 1886(d)(4)(D)**

The HAC policy in section 1886(d)(4)(D) requires the Secretary of the Department of Health and Human Services, by October 1, 2007, to select, in consultation with the Centers for Disease Control and Prevention (CDC), at least two conditions that are: (a) high-cost, high-volume, or both; (b) assigned to a higher-paying MS-DRG when present as a secondary diagnosis (that is, conditions under the MS-DRG system that are CCs or MCCs); and (c) could “reasonably have been prevented through the application of evidence-based guidelines.”<sup>5</sup>

Section 1886(d)(4)(D)(iii) of the Act requires hospitals, effective with discharges occurring on or after October 1, 2007, to submit information on Medicare claims specifying whether diagnoses were present on admission (POA). Consistent with this statutory provision, CMS requires IPPS hospitals to code an indicator for each diagnosis code listed on a claim that identifies whether that diagnosis was present on admission or acquired during the hospitalization. These are known as “POA indicators”. Under section 1886(d)(4)(D)(i) of the Act, effective for discharges occurring on or after October 1, 2008, Medicare no longer assigns an inpatient hospital discharge

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<sup>4</sup> Bernard, S., Dalton, K., Lenfestey, N., Jarrett, N., Nguyen, K., Sorensen, A., and West, N. *Interim Study to Support a CMS Report to Congress: Assess Feasibility of Extending the Hospital-Acquired Conditions Present on Admission IPPS Payment Policy to non-IPPS Payment Environments*, RTI International, February 2012. This study is, hereafter, referred to as the RTI study. (It is attached as Appendix C.)

<sup>5</sup> By fiscal year (FY) 2008, CMS had replaced DRGs with Medicare-Severity DRGs (MS-DRGs), which are more sensitive to the presence or absence of complicating conditions.

to a higher paying MS-DRG if a selected condition is not POA, and that condition is the only reason why the discharge would be assigned to the higher paying MS-DRG.

After reviewing the considerable public comment in fiscal year (FY) 2007 and 2008 IPPS rulemaking, CMS finalized a list of eight HAC categories of conditions. Two additional categories of conditions were added to the list of selected HACs in FY 2009, and one of the original hospital acquired conditions categories was expanded. The current list of HACs is displayed in Table 1 and the previously-considered candidate HACs are displayed in Table 2. The agency updates the specification of the selected conditions (e.g., as codes are updated) annually through public notice and comment rulemaking. CMS considers additional candidate conditions<sup>6</sup> and reviews previously-considered candidate conditions annually.

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<sup>6</sup> CMS proposed adding contrast-induced acute kidney injury in the FY 2012 proposed IPPS rule but did not select this candidate condition in final rulemaking. This condition was not included in the RTI study or this report because it was proposed after the research for the study was completed.

**Table 1**  
**Conditions Selected for the HAC Payment Provision (FY 2011)**

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1. Foreign Object Retained After Surgery
  2. Air Embolism
  3. ABO Blood Compatibility
  4. Pressure Ulcer Stage III and IV
  5. Falls and Trauma
    - a. Fracture
    - b. Dislocation
    - c. Intracranial Injury
    - d. Crushing Injury
    - e. Burn
    - f. Other Injuries
  6. Catheter –Associated Urinary Tract Infection (CAUTI)
  7. Vascular Catheter-Associated Infection (CLABSI)
  8. Manifestation of Poor Glycemic Control
  9. Surgical Site Infections (SSIs)
    - a. Mediastinitis, following CABG
    - b. Following certain orthopedic surgeries
    - c. Following bariatric surgery for obesity
  10. Deep Vein Thrombosis & Pulmonary Embolism following Certain Orthopedic Procedures
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**Table 2**  
**Conditions Previously Considered But Not Included in the HAC Program**

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1. *Clostridium difficile*-Associated Disease (CDAD)
  2. Delirium
  3. Legionnaires' Disease
  4. *Staphylococcus aureus* Septicemia
  5. Methicillin Resistant *Staphylococcus aureus* (MRSA)
  6. Iatrogenic Pneumothorax
  7. Ventilator-Associated Pneumonia (VAP)
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Note: CMS proposed adding contrast-induced acute kidney injury in the FY 2012 IPPS proposed rule but did not select this candidate condition in final rulemaking. Additionally, CMS proposed adding surgical site infection after cardiac device implantation and iatrogenic pneumothorax after venous catheterization in the FY2013 IPPA proposed rule. These conditions were not included in the RTI study and this report because they were proposed after research for the study was completed.

By placing financial responsibility for an HAC on the hospital, the policy promotes the delivery of better quality, safer care by decreasing both preventable adverse events and costs for Medicare. The HAC policy under section 1886(d)(4)(D) is “case based,” meaning that CMS is required to identify *specific discharges* meeting the definitions of an HAC; potential reductions in the payment may apply only to the specific discharge when an HAC occurs. Section 1886(p) of the Social Security Act, as added by section 3008(a) of the Affordable Care Act, also requires CMS to make risk-adjusted “rate-based” payment adjustments to IPPS hospitals with relatively poor performance on HACs identified for purposes of section 1886(d)(4)(D) and any other condition acquired during a stay in a hospital that the Secretary determines to be appropriate, effective for discharges from applicable hospitals during FY 2015. This additional rate-based HAC adjustment will reduce the DRG-based payment amount by one percent for all Medicare discharges in applicable hospitals - those with rates in the top quartile of the distribution of

hospital HAC rates. This Report to Congress, as required by section 3008(b) of the Affordable Care Act, however, focuses only on the feasibility of extending the current case-based HAC policy under section 1886(d)(4)(D) of the Act to the non-IPPS facilities mentioned above. It summarizes the findings of the RTI study and examines whether this policy can be extended to additional settings of care.

## **KEY CONCEPTS**

Healthcare-acquired conditions (HCACs), for purposes of this report, are adverse conditions that occur as the result of care *in healthcare settings other than hospitals paid under the Medicare Inpatient Prospective Payment System (IPPS)*. We define the HAC payment policy if it were to be extended to other healthcare settings as a Health Care Acquired Conditions (HCAC) program.

### **Feasibility of Extending the HAC Payment Provision to Other Types of Facilities**

As noted above, section 1886(d)(4)(D) specifies criteria for the selection of HACs under the HAC payment provision. This section will describe how these criteria would apply to an HCAC program; it also identifies other requirements that affect the feasibility of extending the HAC payment provision to the facilities listed in section 3008(b) of the Affordable Care Act.

First, in order to be consistent with the HAC policy under section 1886(d)(4)(D), potential HCAC conditions must be high cost, high volume, or both. If conditions occurring in a targeted facility are neither high cost nor high volume, then the HAC program cannot be extended to that setting. The RTI study considered both the selected and previously-considered

candidate HACs. It also considered additional conditions that are potentially appropriate to the targeted facilities.<sup>7</sup>

Second, in order to be consistent with the HAC policy under section 1886(d)(4)(D), an HCAC condition must result in a higher payment for the stay or encounter when it occurs. The concept of what it means to pay more is discussed in detail below. If HCACs would not increase the payment for the stay or encounter when the HCAC occurs, then the HAC program cannot be extended to that type of facility. This also means that the HCAC and the payment increase due to the HCAC must be identifiable from data recorded on the claim.

Third, in order to be consistent with the HAC policy under section 1886(d)(4)(D), HCACs must be reasonably preventable through the application of evidence-based guidelines (EBGs). If such guidelines do not exist, then the condition should not be included in an HCAC program. Determining whether EBGs exist for potential HCACs will not be considered because it is outside the scope of this report.

Finally, an HCAC must be attributable to the facility where it occurred. This concept will be discussed in detail below.

### **What Does It Mean for Medicare to Pay More?**

Medicare can pay more for a case with an acquired condition in several ways. Payments under the IPPS provide one example - the HAC may result in the case's assignment to a higher-paying MS-DRG severity level. The current HAC payment provision limits payment in these cases to the amount that would have been paid for the case in the absence of the HAC secondary diagnoses. However, we have found that payment is not reduced for the majority of IPPS

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<sup>7</sup> Refer to section 4 in the RTI study for information on how the selected and previously-considered HACs and other conditions might apply to the targeted facilities.

hospitalizations in which an HAC occurs because other complications or comorbidities (CC) or major complications or comorbidities (MCCs) unrelated to the HAC appear on the claim and allow it to continue to be paid at a higher MS-DRG rate.

In settings in which payment is not fixed by discharge or by visit, different examples can illustrate how an HCAC could result in increased payments. In cost-based and fee-for-service settings (such as CAHs or certain hospital outpatient services with very narrowly defined ambulatory patient classifications), additional Medicare payments could be generated whenever an acquired condition requires the patient to receive additional covered services. In per-diem settings, such as SNFs, additional Medicare payments are generated whenever an acquired condition leads to an extended length of stay or moves a patient into a higher-weighted case-mix group. Unlike changes in MS-DRGs under IPPS, the payments that result from these settings are not easily identified as extra payments due to an HCAC, so cost-based, fee-for-service, or per-diem settings present a challenge for implementing an HCAC-payment provision.

Acquired conditions do not always have an immediate effect on Medicare program payments for the particular encounter when it occurs.<sup>8</sup> In an outpatient setting, for example, no additional payments are likely to occur if the Medicare payment is fixed and all inclusive -- as with the per-visit rates used to reimburse Rural Health Clinics, or many ASC procedures. Although the added costs to the *providers* could be substantial, the construction of many of the Medicare payment systems prevents these costs from being passed to the Medicare program for that event. “Downstream” or subsequent costs and admissions, however, may be higher as a result of an HCAC.

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<sup>8</sup> This may be the case in IPPS settings as well.

Regardless of the payment setting in which it occurs, an acquired condition often generates need for additional follow-up services. Serious HCACs may result in added post-acute care or readmission to a hospital. These may be “downstream” costs, whether to the patient, to providers, or to the Medicare program. Though often difficult to identify on a service-by-service basis, they can nevertheless be substantial. Even in instances in which HCACs do have immediate impacts on Medicare payments, the ultimate effects on downstream Medicare payments could be considerably greater than any additional payments made during the initial care event when the HCAC occurs. In many of the outpatient settings examined in this report, in fact, the majority of Medicare outlays resulting from HCACs are incurred downstream.

The aim of the HAC payment provision under section 1886(d)(4)(D) is for Medicare not to pay more *for a given discharge during which an HAC occurs* than it would have paid for that discharge had the HAC not occurred.<sup>9</sup> Similarly, in this Report to Congress about the feasibility of expanding the HAC program to other types of facilities, we address whether expanding the HAC program to other settings meets the objective of not paying more *for a given inpatient discharge or outpatient encounter during which an HCAC occurs*. This report does not address downstream costs.

### **Can an HCAC Be Identified on a Medicare Claim?**

Another related consideration mentioned previously is whether an HCAC can be identified on the Medicare claim. Medical conditions are identified by diagnosis codes on Medicare claims. Also, in order for the HAC policy to be expanded, the POA codes indicating whether the medical condition was present on admission to the facility or acquired during the

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<sup>9</sup> However, payment is not reduced for the majority of IPPS hospitalizations during which a selected HAC occurs because if either a nonselected complication or comorbidity (CC) or a major complication or comorbidity (MCC) appears on the claim, the claim will continue to be paid at the higher MS-DRG rate.

stay or encounter must also be coded on the claim. IPPS hospital claims include up to nine diagnoses and POA indicator codes on the claim for each hospital discharge.<sup>10</sup> Facilities that file their claims in the same format as IPPS hospitals<sup>11</sup> could begin to report POA indicator codes relatively soon. The claim formats for facilities that do not use the IPPS format would have to be modified before an HCAC program could be put in place.

### **Is the Increase in Payment Associated with an HCAC Identifiable?**

The amount Medicare pays for an inpatient stay under IPPS depends on the MS-DRG assigned to the discharge. Under current HAC policy, the increase in payment that results from the HAC can be calculated as the difference between the payment for a particular discharge including the HAC and the payment for that particular discharge in the absence of the HAC. It would be most feasible to extend the HAC payment policy to payment systems for facilities that are paid on a per-discharge basis similar to IPPS. As described above, other payment systems would not lend themselves to readily identifying the increase in payment that resulted from the HCAC. For facilities that are paid on the basis of cost or approved fee schedule, for example, it would be difficult to determine the amount of the additional costs or charges that could be attributed to an HCAC; likewise, for facilities that are paid on a per-diem basis, it would be difficult to determine the increase in the length of the stay due to an HCAC. In general, HOPDs<sup>12</sup> are paid on the basis of ambulatory payment classifications (APCs); an HCAC could increase payment to these facilities for a particular encounter if additional services were included

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<sup>10</sup> A new claim format for hospitals is currently being implemented that will allow up to 25 diagnoses and 25 POA codes to be retained in the Medicare claims files. Hospitals must file their claims using the new format for discharges on or after January 1, 2012.

<sup>11</sup> These facilities are: Cancer hospitals, Children's hospitals, IRFs, SNFs, IPFs, and CAHs.

<sup>12</sup> HOPDs are not inpatient facilities.

on the claim as a result of the HCAC. Finally, federal clinics are paid for most of their services based on an all-inclusive rate per encounter that is the same regardless of the number of services included within that encounter. Therefore, HCAC payment adjustments could not be readily implemented in these clinics.

### **Is the HCAC Attributable to the Facility Where It Manifests Itself?**

In order to fairly assign responsibility for an acquired condition to a facility, the condition needs to be attributable to the care received at that facility. Was the condition caused by the facility's treatment, or did the patient present to the facility with the condition, or with an exposure that would later present as this condition? From a clinical perspective, attribution can be complex. Regardless of setting, some HACs have an immediate impact or are immediately recorded (e.g., injuries due to falls), whereas others are observed after a latency period (e.g., infections). Conditions with latency periods may be acquired in one setting but not manifest until after discharge to home or transfer to a post-acute setting. POA indicators in outpatient settings are not likely to capture these kinds of conditions because the encounter is brief. Even in general acute-care hospitals, the shorter the length of stay, the more likely it is that an HAC with a latency period will go undetected. Timing issues are, therefore, important to POA coding for healthcare services that patients receive after discharge from a general acute care hospital, for hospital readmissions and for post-acute care including admission to an LTCH, an IRF, or a SNF. Specific rules that define latency periods for particular conditions, such as infections that are not suspected at the time of admission or arrival, do not currently exist but should be developed.

In facilities where POA coding is mandatory, POA indicators distinguish preexisting conditions from complications. Coders use medical record documentation from any qualified

healthcare practitioner who is legally responsible for establishing the patient's diagnosis to differentiate those conditions that were acquired during an inpatient stay from those present on admission.<sup>13</sup> However, the admitting or attending clinician makes the determination of whether a condition is present on admission based on his or her judgment.

The RTI study that was conducted in support of this Report to Congress reviewed the various Medicare payment systems applicable to the facility types identified within the Affordable Care Act provision. Within each of these payment systems, the study considered what it means for Medicare to “pay more” because of an HCAC, whether at the time of service or later. In assessing the feasibility of expanding the HAC program, however, the study only considered options in the context of payments made for services during that initial health care event. After summarizing the RTI study below, we discuss recommendations concerning extending the HAC program to other settings.

## **SUMMARY OF THE RTI STUDY<sup>14</sup>**

### **Methods**

RTI spoke with industry experts and stakeholders to explore whether the HACs and the previously-considered candidate HACs were potential candidates as HCACs for the types of facilities included in this report. They also explored whether any additional acquired conditions may be suitable as HCACs for these facilities. In addition, RTI conducted a search of the

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<sup>13</sup> Under section 1886(d)(4)(D)(ii)(III), the HAC payment provision applies only in situations in which the condition was not present on (the inpatient) admission; it does not apply if a condition was not present upon arrival to the hospital outpatient department but was later present on admission to the same hospital as an inpatient.

<sup>14</sup> Attached as Appendix C.

relevant literature.<sup>15</sup> RTI also analyzed diagnosis codes and procedure codes from Medicare claims in these settings to determine the frequency with which the clinical conditions being studied appeared. (These were frequency analyses without respect to whether the conditions were present on admission or acquired, because POA indicators are not required in non-IPPS settings.) For patients discharged from IRFs and SNFs, RTI also analyzed Medicare patient assessment data to obtain a more complete understanding of diagnoses reported for patients in these settings. Some HACs are defined only as combinations of diagnoses following certain surgical procedures; RTI therefore also investigated the prevalence of these HAC-related diagnoses in post-acute care settings to which patients had been transferred from an acute hospital setting subsequent to receiving those surgical procedures.

## **Findings**

This section summarizes the RTI's study findings concerning extension of the HAC payment provisions to other settings. In addition to the three criteria listed in section 1886(d)(4)(D) for selection of HACs under IPPS, RTI considered four more criteria for applying the HAC payment provisions to non-IPPS facilities: (1) the selected HCACs must be applicable to the clinical populations served by the targeted facilities; (2) it should be feasible for the POA indicator to be coded on the claim form; (3) the amount of the Medicare payment increase due to the HCAC must be identifiable; and (4) the selected HCAC should be expected to manifest itself during the encounter or stay.

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<sup>15</sup> Refer to Appendix D of the RTI study for a list of search terms used in their literature review.

## **Extending the HAC Payment Provision to Other Facilities Presents Considerable Challenges**

RTI found that there are considerable challenges to extending the current case-based IPPS HAC payment provision to the types of facilities listed in Section 3008(b) of the Affordable Care Act. While RTI found that the conditions are potentially clinically appropriate, they found that extending the payment aspects of the program is less feasible. RTI concluded that the only facility type where a) at least some of the studied conditions were clinically applicable and b) the prospective payment system was amenable to the HAC payment provisions, is the Long Term Care Hospital (LTCH) because of the similarity of the LTCH Prospective Payment System (PPS) to IPPS.

Table 3 summarizes RTI's findings on the feasibility of extending the HAC program to targeted types of facilities. IPPS facilities, described as reference, meet all the criteria except for one - attribution (displayed in the last row of the table and referenced as "Likelihood that HCAC Would Manifest During the Stay/Encounter"). Attribution of conditions with latency periods may present a problem in IPPS hospitals because the average length of stay is relatively short (three to four days). In general, attribution may be less of a problem in settings with average lengths of stay that exceed those seen in the IPPS setting, such as LTCHs, IRFs, and SNFs.

**Table 3**  
**Summary of the RTI Study Findings on the Feasibility of Extending the HAC-POA Program to Targeted Facilities**

<b>Criteria/Type of Facilities</b>	<b>IPPS</b>	<b>LTCH</b>	<b>IRF</b>	<b>IPF</b>	<b>SNF</b>	<b>CA</b>	<b>CH</b>	<b>MD</b>	<b>CAH</b>	<b>HOPD</b>	<b>CAH-HOPD</b>	<b>ASC</b>	<b>FQHC</b>	<b>RHC</b>
Overall Feasibility	●	●	◐	○	◐	○	○	○	○	○	○	○	○	○
Applicability of Selected HAC Conditions	●	●	◐	◐	◐	◐	◐	●	●	◐	◐	◐	◐	◐
Applicable HCACs That Are High Cost, High Volume, or Both	●	●	●	○	●	●	●	●	◐	◐	◐	◐	◐	◐
Likelihood That HCACs Would Result in Higher Payment for Stay/Encounter When They Occur	●	●	◐	○	●	●	●	●	●	◐	●	◐	○	○
Ease of Adding POA Codes to the Claim Form	●	●	●	●	●	●	●	●	●	◐	◐	○	○	○
Likelihood That the Payment Increase is Identifiable	●	●	◐	◐	◐	○	○	○	○	◐	◐	○	NA	NA
Likelihood That an HCAC Would Manifest During the Stay/Encounter	◐	●	●	◐	●	◐	◐	◐	◐	○	○	○	○	○

●-Most applicable, most likely, or easiest, ◐-Less applicable, less likely, not as easy, ○-Least applicable, least likely, or difficult.

IPPS-Inpatient Prospective Payment System, LTCH-Long Term Care Hospital, , IRF-Inpatient Rehabilitation Facility, IPF-Inpatient Psychiatric Facility, SNF-Skilled Nursing Facility, CA-Cancer Hospital, CH-Children’s Hospital, MD-Maryland Waiver Hospitals, CAH-Critical Access Hospital, HOPD-Hospital Outpatient Department, ASC-Ambulatory Surgical Center, FQHC-Federally Qualified Health Center, RHC-Rural Health Center.

### ***Long-Term Care Hospitals (LTCHs)***

Of all the targeted facilities, RTI found that only LTCHs have a payment system that is amenable to a case-based HCAC program without modification. Medicare's LTCH PPS mirrors the payment system for IPPS hospitals. Also, the LTCH-PPS uses the same approach for grouping stays into payment units as IPPS (although weights and rates generally result in much higher payments to LTCHs).<sup>16</sup>

### ***Inpatient Rehabilitation Facilities (IRFs)***

RTI found that extending the HAC program to IRFs is feasible, but implementing such a program would require expanding the secondary diagnosis coding on the IRF Patient Assessment Instrument (IRF-PAI) and would require an extra step in the CMS claims/payment processes. The IRF payment system, like IPPS, is discharge-based and uses a case-mix adjusted per-discharge payment method that, for some of the studied conditions, could result in a higher payment because the HCAC puts the patient in higher payment tier. However, RTI concluded that neither the CMS claims nor the IRF-PAI are sufficient for complete reporting of secondary diagnoses; modifications to the IRF-PAI form would be needed in order to implement a case-based HCAC payment provision. Furthermore, in many cases, HCACs occurring in an IRF may result in a readmission to the acute-care hospital. For such cases, HCACs would result in greater downstream costs rather than greater costs associated with the IRF stay.

### ***Skilled Nursing Facilities (SNFs)***

RTI found that extending the HAC payment provision to SNFs would be difficult. Under the SNF prospective payment system, the per-diem payment rate is adjusted for case mix based

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<sup>16</sup> Refer to sections 3.3.1 and 4.2.1 of the RTI study for a more comprehensive description of the LTCH payment system.

on clinical information recorded in the SNF assessment instrument,<sup>17</sup> including the amount of daily therapy services and presence of patient characteristics (such as functional status) that increase the intensity of nursing. Many of the selected HACs are serious events that would result in hospital readmission – thus resulting in lower SNF payments for that stay although creating additional downstream Medicare payments in that spell of illness. Where readmission does not occur, some HCACs could be expected to raise Medicare SNF payments by moving the patient to a higher paying resource utilization group (RUG).<sup>18</sup> SNFs are permitted to submit interim claims (claims for partial stays prior to final discharge) and the case-mix adjusted payment rate can change throughout the SNF stay. An HCAC could both increase the patient’s acuity (moving the patient to a higher-weighted RUG and resulting in a higher per-diem payment) and could increase the patient’s length of stay. Further exploration is needed into whether the SNF prospective payment system could be used to distinguish between an HCAC and other complications, in order to identify HCAC-related payment increments on SNF interim claims.

RTI noted that CMS may be limited in the number of ways it could reduce payments for longer lengths of stay without jeopardizing patient care. Treating excess days as non-covered services, for example, could place the beneficiary at risk for poor or reduced services.

### ***Inpatient Psychiatric Hospitals (IPFs)***

RTI found that it is not feasible to extend the HAC payment provision to IPFs given the specifics of the prospective payment system for this type of hospital. Most of the selected HACs

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<sup>17</sup> Minimum Data Set (MDS).

<sup>18</sup> The SNF payment system uses the Resource Utilization Groups, version 4 (RUG-IV) classification system to assign per diem rates. Although RTI found that many of the selected HACs are clinically relevant, only two conditions included in the HAC-POA program have higher-weighted RUGs associated with treatment (Falls and Trauma, and Pressure Ulcer Stages III and IV); further study is required to determine whether, and by how much, they increase payment to SNFs. Refer to section 3.3.2 and 4.2.2 of the RTI study for more details.

would not raise reimbursement for the IPF stay because the conditions are serious enough that the patient would need general medical or emergency care, and therefore be discharged to a general acute care hospital for treatment. Because IPFs are paid on a per-diem basis rather than per-discharge, a discharge to an acute care hospital could potentially result in lower IPF payments for the case with the HAC as compared to the case without the HAC. The only HAC category that may possibly satisfy the necessary high-cost, high volume criterion set forth for the HAC payment provision in section 1886(d)(4)(D) is falls and trauma. Other viable potential conditions were not identified by the experts and stakeholders contacted by RTI.

HCACs affecting IPF patients who are not serious enough to result in discharge could, however, lead to additional days of care. RTI noted that as with HCACs in SNFs, it would be difficult to discern exactly which days were attributable in whole or in part to a preventable event. Therefore, IPFs are not a candidate for an HCAC payment provision.

***Cancer Hospitals (CAs), Children’s Hospitals (CHs), and Critical Access Hospitals (CAHs)***

In general, Medicare reimburses the sixty designated Children’s Hospitals and eleven designated Cancer Hospitals<sup>19</sup> the lower of a hospital’s total Medicare hospital inpatient operating costs or its ceiling. (The ceiling is calculated as its updated target amount per discharge multiplied by its total number of Medicare discharges for that period.) At the end of a cost reporting period, the ceiling is calculated and compared to the hospital’s total Medicare inpatient operating costs, and payment is made at the lower of these two figures. If HCACs in these facilities result in greater resource consumption, Medicare reimbursement could increase,

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<sup>19</sup> Medicare reimburses the 60 CHs and the 11 CAs under various provisions in Title 18 of the Social Security Act. The payment scheme of reimbursing on the basis of cost per discharge not to exceed a ceiling had its origins in the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). For the list of the 11 designated CAs, see section 4.1.1 of the RTI study. All other acute care hospitals that treat cancer patients are paid under the IPPS.

but only up to a hospital's ceiling. (In a hospital that already exceeds its ceiling, the HCAC would have no effect on Medicare payment.) Critical access hospitals generally receive Medicare reimbursement based on 101 percent of their reasonable costs, with no targets or other cost limits. For these three types of hospitals that are paid based on their costs, RTI found that it would be very difficult to determine the costs associated with an HCAC. In addition, since cancer hospitals, children's hospitals, and CAHs are not currently paid on a case-based system, extending the case-based HCAC payment provision to these facilities is not feasible at this time.

The RTI recommendation not to extend the HAC payment provision to CHs considers populations and payment systems solely from the perspective of the Medicare program. It does not address the differences in Medicaid's population, nor does it account for the various payment systems currently operating in state Medicaid programs. Therefore, this recommendation does not preclude or conflict with the CMS policy for state Medicaid programs to make a payment adjustment for Provider-Preventable Conditions (PPCs) including HCACs and Other Provider-Preventable Conditions (OPPCs) required under section 2702 of the Affordable Care Act.

### ***Maryland Waiver Hospitals***

Since 1971, Maryland has been the only state in the country in which hospitals have been continuously excluded from the Medicare payment rules due to a state-specific Medicare waiver. Present on admission codes were introduced for all Maryland hospitals in 2007 and are required for all inpatients. The Maryland Hospital Acquired Condition (MHAC) program began implementation in the year beginning July 2009 and it began affecting hospitals' eligibility for rate increases in the year beginning July 2010. It currently includes 49 preventable acquired conditions. Although all of the CMS-selected HACs are clinically relevant and implementable in

Maryland's hospitals, extension of a CMS case-based HAC payment provision identical to that applied under IPPS is not appropriate under the existing statutory framework because Maryland operates under a waiver and under the Maryland system hospitals are not paid under a DRG claims-based system.<sup>20</sup>

***Federal Clinics (RHCs and FQHCs)***

The HAC payment provision was established for an inpatient setting. RTI found that applying this case-based program to a clinic setting is impractical because clinics are paid an all-inclusive visit rate and, therefore, there is almost no potential for Medicare to pay more for an encounter where an HCAC occurs than it would if the HCAC did not occur. In addition, many of the selected HACs are complications of procedures that are not performed in these clinics. The falls and trauma HAC is one category that could be acquired in a clinic setting, although patients contracting major injuries are likely to be sent to an acute-care hospital for treatment.

***Hospital Outpatient Department (HOPDs) and Ambulatory Surgical Centers (ASCs)***

There are many different ways in which Medicare payments can be affected by an HCAC occurring in HOPDs or ASCs. RTI found that payments for most surgeries performed in HOPDs and ASCs are already bundled into relatively broad categories, such that any additional services delivered as a result of an HCAC are likely to already be included in the reimbursement rate.<sup>21</sup> This means that in the immediate term, higher costs attributable to the HCAC likely would be borne by the HOPD or ASC rather than passed on to the Medicare program unless the HCAC caused the patient to be admitted to an acute-care hospital or receive Medicare-covered services

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<sup>20</sup> For more detailed discussions of the Maryland's payment system and its program to reduce hospital-acquired conditions, refer to sections 3.3.3 and 4.1.5 in the RTI study.

<sup>21</sup> Payments for HOPDs and ASCs are generally bundled using Ambulatory Payment Classifications (APCs) developed for Outpatient Prospective Payment System (OPPS). Refer to sections 3.4 and 4.3 in the RTI study for more information on payment in ambulatory care facilities.

in another setting. Therefore, an HCAC program where financial incentives are focused only on the initial outpatient surgical procedure likely would have little impact on Medicare HOPD or ASC payments for the encounter in which the HCAC occurs.

The Ambulatory Patient Classification (APC) system for other HOPD services – such as clinics, emergency rooms, radiology, cardiac testing or other imaging – are bundled at smaller individual service levels. These smaller bundles can result in multiple APCs being billed for a single hospital outpatient encounter. An HCAC occurring for a patient receiving these types of services could result in increased Medicare payments during that same encounter, by causing additional APCs to be billed. It is plausible that specific APCs could be linked to a specific HCAC (radiology services, for example, following a fall). However, identifying the related services is not straightforward and could not easily be accomplished through a claims payment edit.

Whether occurring during outpatient surgeries or other outpatient services, many of the selected HACs are serious enough to result in hospital admission. Under these circumstances, the payment implications diverge for the freestanding ASC and HOPD. A freestanding ASC<sup>22</sup> *would* be reimbursed for the encounter when an HCAC occurs and the patient is subsequently admitted to an acute care facility. If a patient is admitted into an IPPS hospital due to an HCAC in that same hospital's HOPD that occurred the day of admission or within three days of the date of the inpatient admission, however, the hospital *is not* separately reimbursed for the HOPD

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<sup>22</sup> We use the term “freestanding ASC” to mean a Medicare certified ASC. A Medicare certified ASC can be an independent ASC or one operated by a hospital that is a separately identifiable entity, physically, administratively, and financially independent and distinct from the other operations of the hospital with costs for the ASC treated as a non-reimbursable cost center on the hospital's cost report. Medicare certified ASCs are paid under the ASC payment system and use the CMS 1500 form to submit claims. We note that a unit of a hospital is sometimes referred to by a hospital as an ASC, even though it is not a Medicare certified ASC. These services are considered HOPD services for Medicare purposes and would be paid under the OPSS. The hospital would use the CMS 1450 form to bill for these services.

encounter because the outpatient charges are bundled into the inpatient claim and are covered under the payment for the inpatient stay. If the reason for admission is the HCAC, standard coding procedures are to identify it as the principal diagnosis and code it as present at the time of the admission, because the condition is present at the time that the admission order is written.<sup>23</sup> Thus, even though the condition is clearly hospital-acquired from the perspective of the patient's treatment encounter, it will not be identified on any Medicare claim as hospital-acquired. The hospital receives full reimbursement for the inpatient stay in these cases. (See the section on POA coding below.)

This is an important issue because five out of the current list of 10 CMS-selected HACs are clinically relevant and implementable in the HOPD or ASC: falls and trauma, foreign object retained after surgery, blood incompatibility, air embolism, and glycemic control (see Table 6). RTI recommended that diagnoses corresponding to these HCACs be coded on the HOPD claim along with POA codes; they did not recommend coding changes for freestanding ASCs (refer to the explanation in the next paragraph). A patient affected by any one of these HACs is likely to be admitted to the hospital. For HCACs acquired in a HOPD and resulting in a hospital admission, RTI recommended continuing the current coding practice that the HCAC be coded as the principal diagnosis for the admission, but that a special POA indicator be assigned to identify the HCAC as having been acquired during a preceding outpatient service. This would represent

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<sup>23</sup> From the ICD-9-CM Official Guidelines for Coding and Reporting Effective October 1, 2010, Section G Complications of surgery and other medical care: "When the admission is for treatment of a complication resulting from surgery or other medical care, the complication code is sequenced as the principal diagnosis. If the complication is classified to the 996-999 series and the code lacks the necessary specificity in describing the complication, an additional code for the specific complication should be assigned" (Page 87) and Appendix 1 Present on Admission Reporting Guidelines, Assigning the POA Indicator: "Condition develops during outpatient encounter prior to inpatient admission, assign (POA=Y) for any condition that develops during an outpatient encounter prior to a written order for inpatient admission.

a change from current POA coding guidelines, which call for the HCAC to be coded simply as *present on admission*. This information would allow for further study to consider best methods to reduce reimbursement for a hospital stay that results from the acquisition of an HCAC in the same hospital's HOPD.

RTI did not recommend extending an HCAC program to freestanding ASCs (i.e., ASCs eligible to bill on a CMS 1500 physician claim form). Coding on the CMS 1500 would not support POA indicators at this time. In addition, RTI felt that the all-inclusive nature of most surgical APCs reduces the potential for increased Medicare payment for HCACs in this setting.<sup>24</sup>

### **Rate-Based HCAC Programs**

For the settings where an HAC program is not suitable, RTI suggested that rate-based HCAC programs may be used to improve quality and safety in facilities instead of the HAC policy set forth in section 1886(d)(4)(D). Such programs would be tailored to each type of facility with penalties for HCAC rates above some setting-specific benchmark or for rates that failed to improve over time. Such programs would necessitate developing suitably risk-adjusted benchmarks for the specific populations that are treated in each setting. Setting-specific evidence-based guidelines for reducing HCACs would also need to be identified or developed. CMS would need time to design programs for these environments.

### **Present on Admission (POA) Coding<sup>25</sup>**

RTI found that collection of POA indicator data in the targeted facilities is both necessary and technically feasible in all settings reviewed for this report with the exception of freestanding

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<sup>24</sup> Refer to section 3.4.1 for background information on APCs and section 3.5.1 for background on the CMS Form 1500 in the RTI study.

<sup>25</sup> For a more complete discussion of the diagnosis coding, refer to section 3.5 in the RTI study.

ASCs. Due to large numbers of small dollar-value claims, however, RTI also concluded that POA coding for all diagnoses in outpatient settings would be burdensome and not cost-effective. For HOPD and federal clinics (FQHCs and RHCs), RTI suggested that an expanded list of “POA- exempt” ICD diagnosis codes be developed, such that outpatient coders could focus on a limited set of diagnoses relevant to a range of potential HCACs selected by the Secretary.

To the extent that the POA coding requirement is expanded to include the targeted facilities and data becomes available, RTI recommended that the Secretary consider conducting several exploratory studies prior to implementing an expanded HCAC payment provision. Potential important investigations included: 1) studies designed to identify the appropriate time intervals to identify attribution and POA for infections and deep vein thrombosis (DVT) in post-acute care settings; 2) patterns of admissions for complications of care following conditions acquired during a prior outpatient service; and 3) patterns of readmissions to IPPS settings following conditions acquired in an inpatient post acute care setting or IPF.

RTI also recommended that the POA definitions for post-acute care settings should be aligned with the CMS quality reporting program definitions such as those required by section 3004 of the Affordable Care Act.<sup>26</sup>

### **Applicable Clinical Conditions**

RTI found that, while not all selected and previously-considered candidate HACs are clinically relevant and implementable to all settings, each setting has several conditions that may be clinically relevant and implementable based on discussions with industry experts and stakeholders. (See Tables 4 to 6.) In the following tables, “Clinically relevant and

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<sup>26</sup> Section 3004 of The Affordable Care Act requires that quality measures be defined and reported publicly for the LTCH, IRF, and hospice settings. The hospice setting is not covered in this report.

implementable” refers to HACs that could be used and applied in an HCAC program for a particular setting, as currently defined by CMS for the HAC program in IPPS settings.

“Clinically relevant, but not immediately implementable” refers to HACs that would require a change in definition or practice prior to implementation in an HCAC program in that setting (e.g., addition of an attribution window, or exclusion of patients with certain conditions, or that might require further study to establish preventability in the particular setting, or that might be clinically applicable yet have the potential to incur substantial unintended consequences if implemented). “Not applicable” refers to conditions that could not occur in the specified type of facility (e.g., surgical site infections cannot occur in facilities that do not perform surgery).

If the HAC program were to be extended to the types of facilities reviewed in this report, additional HCACs could be identified that are targeted to the population served (e.g., HCACs in Cancer Hospitals that would focus on conditions more specific to cancer treatments and procedures). Final selection of acquired conditions for HCAC programs is also dependent on whether evidence-based guidelines exist or are developed to apply to clinically-applicable conditions for the types of patients treated in these settings. Final selection of conditions for an HCAC program would need to be based on the findings of experts, CMS staff review, and comments by the public during the CMS rulemaking process.

**Table 4**  
**Clinical applicability of conditions included in HAC Program and previously considered candidate conditions to non-IPPS facilities: Cancer Hospitals, Children’s Hospitals, Critical Access Hospitals, Inpatient Psychiatric Facilities, and Maryland Waiver Hospitals**

	CA	CH	CAH	IPF	MD
Condition included in the HAC-POA Program					
1) Retained foreign object	●	●	●	○	●
2) Air embolism	●	●	●	●	●
3) Blood incompatibility	●	●	●	○	●
4) Pressure ulcer	●	●	●	●	●
5) Falls and traumas					
• Fracture	◐	●	●	●	●
• Dislocation	◐	●	●	●	●
• Intracranial injury	◐	●	●	●	●
• Crushing injury	◐	●	●	●	●
• Burn	◐	●	●	●	●
• Other Injuries	◐	●	●	●	●
6) Catheter-associated urinary tract infection	●	●	●	◐	●
7) Vascular catheter-associated infection	●	●	●	○	●
8) Manifestations of poor glycemic control	●	◐	●	●	●
9) Surgical site infection					
• Mediastinitis	○	○	○	○	●
• Post-orthopedic	○	○	●	○	●
• Post-bariatric	○	○	◐	○	●
10) Thrombosis, post-orthopedic	○	○	●	○	●
Conditions previously considered but not included in the HAC-POA program					
1) Clostridium difficile-associated disease	◐	◐	◐	◐	●
2) Delirium	◐	○	◐	◐	●
3) Legionnaires’ disease	◐	○	◐	◐	●
4) Staphylococcus aureus septicemia	◐	◐	◐	◐	●
5) Methicillin-resistant staphylococcus aureus	◐	◐	◐	◐	●
6) Iatrogenic pneumothorax	◐	◐	◐	◐	●
7) Ventilator-associated pneumonia	◐	◐	○	○	●

NOTE: Preliminary, based on RTI’s discussions with industry experts and stakeholders.

CA, Cancer Hospitals; CH, Children’s Hospitals; CAH, Critical Access Hospitals; IPF, Inpatient Psychiatric Facilities; MD, Maryland Waiver Hospitals

● – Clinically relevant and implementable; ◐ – Clinically relevant, but not immediately implementable;

○ – Not applicable.

**Table 5**  
**Clinical applicability of conditions included in HAC program and previously considered candidate conditions to other acute and post-acute care facilities: Inpatient Rehabilitation Facilities, Long-Term Care Hospitals, and Skilled Nursing Facilities**

	IRF	LTCH	SNF
Condition included in the HAC-POA program			
1) Retained foreign object	○	●	○
2) Air embolism	●	●	●
3) Blood incompatibility	●	●	●
4) Pressure ulcer	●	●	●
5) Falls and traumas			
• Fracture	●	●	●
• Dislocation	●	●	●
• Intracranial injury	●	●	●
• Crushing injury	●	●	●
• Burn	●	●	●
• Other Injuries	●	●	●
6) Catheter-associated urinary tract infection	●	●	◐
7) Vascular catheter-associated infection	●	●	●
8) Manifestations of poor glycemic control	●	●	●
9) Surgical site infection			
• Mediastinitis	◐	◐	◐
• Post-orthopedic	◐	◐	◐
• Post-bariatric	◐	◐	◐
10) Deep vein thrombosis, post-orthopedic	◐	◐	◐
Condition previously considered but not included in the HAC-POA program			
1) Clostridium difficile-associated disease	◐	◐	◐
2) Delirium	◐	◐	◐
3) Legionnaires' disease	◐	◐	◐
4) Staphylococcus aureus septicemia	◐	◐	◐
5) Methicillin-resistant staphylococcus aureus infection	◐	◐	◐
6) Iatrogenic pneumothorax	○	◐	○
7) Ventilator-associated pneumonia	◐	◐	◐

NOTE: Preliminary, based on RTI's discussions with industry experts and stakeholders.

IRF, Inpatient Rehabilitation Facilities; LTCH, Long-Term Care Hospitals; SNF, Skilled Nursing Facilities

● – Clinically relevant and implementable; ◐ – Clinically relevant, but not immediately implementable;

○ – Not applicable.

**Table 6**  
**Clinical applicability of conditions included in the HAC program and previously considered candidate conditions to outpatient facilities: Ambulatory Surgical Centers (ASC), Federally Qualified Health Centers (FQHC) and Rural Health Centers (RHC), and Hospital Outpatient Departments (HOPD)**

	ASC	FQHC, RHC	HOPD
<b>Conditions included in HAC-POA program</b>			
1) Retained foreign object	●	○	●
2) Air embolism	●	○	●
3) Blood incompatibility	●	○	●
4) Pressure ulcer	○	○	○
5) Falls and traumas			
• Fracture	●	●	●
• Dislocation	●	●	●
• Intracranial injury	●	●	●
• Crushing injury	●	●	●
• Burn	●	●	●
• Other Injuries	●	●	●
6) Catheter-associated urinary tract infection	◐	○	◐
7) Vascular catheter-associated infection	○	○	◐
8) Manifestations of poor glycemic control	●	◐	●
9) Surgical site infection			
• Mediastinitis	○	○	○
• Post-orthopedic	○	○	○
• Post-bariatric	○	○	○
10) Deep vein thrombosis, post-orthopedic	○	○	○
<b>Condition previously considered but not included in the HAC-POA program</b>			
1) Clostridium difficile-associated disease	○	◐	◐
2) Delirium	◐	◐	◐
3) Legionnaires' disease	○	○	◐
4) Staphylococcus aureus septicemia	◐	◐	◐
5) Methicillin-resistant Staphylococcus aureus	◐	◐	◐
6) Iatrogenic pneumothorax	◐	○	●
7) Ventilator-associated pneumonia	○	○	○

NOTE: Preliminary, based on RTI's discussions with industry experts and stakeholders.

ASC, Ambulatory Surgical Centers; FQHC, Federally Qualified Health Centers, RHC, Rural Health Centers; HOPD, Hospital Outpatient Departments

● – Clinically relevant and implementable; ◐ – Clinically relevant, but not immediately implementable; ○ – Not applicable.

## **Stakeholder Feedback<sup>27</sup>**

RTI also found that stakeholders from all settings included in this study expressed support for the idea of being held to the same standards of care as IPPS hospitals. These settings all share the goal of promoting quality of care and patient safety by eliminating preventable health care-acquired conditions.

## **THE HAC PROGRAM EVALUATION**

CMS continues to evaluate the HAC program, which began affecting payment for IPPS hospitals in fiscal year 2009. The accuracy of the POA indicator coding is a central concern because only about five percent of claims that report HACs as secondary diagnoses are coded as acquired during the hospital stay. The evaluation will include some investigation of the accuracy of POA coding.

The main goal of the HAC policy is for Medicare to not pay more when a selected condition is acquired in the hospital. The HAC payment policy, however, only affects a small fraction of claims with selected conditions that were coded as acquired during the hospital stay because a large portion of these claims have CCs or MCCs unrelated to HAC that raise them to higher paying MS-DRGs. The HAC policy reduced Medicare payment for about 26 percent of claims with selected conditions coded as acquired during the hospital stay in FY 2009, for a savings of \$23 million for Medicare. It reduced payment for about 19 percent of such claims in FY 2010 for a savings of \$21 million. This policy also aims to improve the quality of hospital care.

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<sup>27</sup> Stakeholders were also consulted concerning the applicability of the HAC conditions to the targeted settings.

## RECOMMENDATIONS

- 1. The Secretary recommends that HACs and HCACs take priority in quality measurement and reporting programs in various health care settings, where the authority for such programs exists and where Congress may choose to create additional programs.**

Prioritization of HACs and HCACs in various health care settings is in alignment with the National Quality Strategy and Inpatient Quality Reporting Program. The National Quality Strategy (NQS), developed by the U.S. Department of Health and Human Services, establishes a blueprint for improving the quality of health and healthcare for all Americans. One of the six priorities articulated in the NQS is making care safer by reducing harm caused in the delivery of care. CMS used the NQS's six priorities as the basis for a quality measurement framework that contains a "safety" domain. The framework serves as a tool for alignment and measure gap analysis across CMS quality measurement, reporting, and value-based purchasing programs. The framework ensures that even in programs or care settings where measures of HACs and HCACs are not fully developed, safety and reducing harm caused in the delivery of care are visible priorities. The Hospital Inpatient Quality Reporting program has expanded in recent years to include a number of healthcare-associated infection measures. These measures include the Central Line-Associated Bloodstream Infection (CLABSI), Surgical Site Infection (SSI), and Catheter-Associated Urinary Tract Infection (CAUTI) measures, which are currently being collected through the National Healthcare Safety Network (NHSN), as well as measures of Clostridium difficile and MRSA Bacteremia, for which measure data will be collected in the IQR program beginning in 2013.

In addition to prioritizing measurement of HACs and HCACs in its programs, CMS is also working to reduce harm through on-the-ground technical assistance, collaboration, and

support to providers. Through the Partnership for Patients, the Center for Medicare and Medicaid Innovation (CMMI) is investing up to \$500 million in public-private partnerships to help hospitals reduce HACs at their own facilities. The Quality Improvement Organizations are also working to reduce harm through Healthcare Associated Infections Prevention Learning and Action Networks, which facilitate peer-to-peer learning and best-practice sharing.

Currently, there is statutory authority for quality measure reporting programs for IPPS hospitals, hospital outpatient departments, ASCs, LTCHs, IRFs, IPFs, Cancer Hospitals, hospices, and for physicians.<sup>28</sup> CMS is beginning to implement quality measure reporting programs in some facility settings, and some of the early measures being adopted or proposed for adoption in these settings include healthcare-associated infection measures and HACs. New quality reporting programs are impacting: LTCHs (CLABSI, CAUTI, and a measure of pressure ulcers will be collected in October 2012); PPS-exempt Cancer Hospitals (CLABSI and CAUTI are proposed measures); Inpatient Rehabilitation Facilities (CAUTI and a measure of pressure ulcers will be collected in October 2012); Ambulatory Surgical Centers (patient burn, patient fall, and a measure of wrong site, wrong side, wrong patient, wrong procedure, wrong implant will be collected in October 2012).

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<sup>28</sup> Quality measure reporting is not required for CAHs (although many do report voluntarily and will report measures to CMS if they choose to participate in the Medicare Electronic Health Record Incentive program), Children's Hospitals, FQHCs, and RHCs. Statutory authority for quality measure reporting programs for SNFs or NFs does not exist. However, section 1819(b)(3)(A) of the Social Security Act (the Act) requires all Medicare participating SNFs to "conduct a comprehensive, accurate, standardized reproducible assessment of each resident's functional capacity...". A parallel statutory authority for Medicaid nursing homes (NFs) is included in section 1919(b)(3)(A) of the Act. SNFs and NFs report these data into the Minimum Data Set (MDS). CMS uses some of the submitted SNF and NF MDS assessment data to derive measurements of the quality of certain aspects of nursing home care and displays each nursing home's scores for these measurements on its Nursing Home Compare consumer information website.

Quality measurement through chart abstraction, reporting to surveillance systems such as the NHSN, or coding, and public reporting of HAC and **HCAC rates** in health care settings may improve the quality and safety of patient care. Quality measurement and reporting stimulates quality improvement projects in hospitals. Also, experience with the Hospital Compare website for IPPS hospitals has shown that by reporting quality measure data, measure rates improve over time.

Moreover, quality measurement will give health care providers and suppliers more experience tracking HCACs. This will help them in evaluating their performance and targeting areas for improvement while also providing relevant information on HCAC incidence and helping the agency to set priorities.

Further, measurement through chart abstraction, reporting to surveillance systems, and coding of HCAC rates in different facility settings will provide CMS with an expanded knowledge base from which to refine current policy and derive future policy. This expanded measurement of HCAC rates could provide valuable information for refining the existing inpatient HAC program. Insofar as a high proportion of HACs are reported as POA, knowledge regarding the care beneficiaries received prior to being admitted to the hospital (e.g., if they were admitted directly from another type of facility where they contracted the condition) could inform the development of HCAC-reducing quality programs in these other settings. In addition, this knowledge, gained through such means as improving the identification of cases where an HCAC was acquired during the three days prior to an inpatient admission and is related to the

admission, and studying patterns of admissions for complications of care following conditions acquired during a prior outpatient service, could inform the possible refinement of the current HAC policy.

Once the agency has compiled additional information regarding frequencies of various HCACs in different health care settings, it will be better positioned to consider and explore a fuller array of policy incentives to reduce HCACs. These policy incentives could require health care providers and suppliers to collect and provide additional case-based HCAC information, such as is currently done with the POA indicator on the hospital inpatient claim. Because developing the means to collect this additional information could be a lengthy and significant operational change for both the agency and health care providers and suppliers, it is important to understand the incidence of HCACs in different health care settings before further policy development and to pursue any changes with burden in mind.

Finally, public reporting of HCAC rates will allow comparison of HCAC rates across institutions in the same setting and also with comparable national and state rates. It will be valuable to patients in assessing quality and enable them to use the information to make more informed health care choices.

- 2. The Secretary recommends that setting-specific HCAC quality measures for the facilities discussed in this report be developed as appropriate. This process should include: consultations with experts in medicine, measure methodology, and health services research; evaluation of existing claims-based, surveillance-system reported, chart-abstracted, or patient-reported measures; analyses of patterns and severity of HCAC-related diagnoses and evaluation of appropriate data sources for specific care settings but also including measures of care transitions; consideration of comments received from stakeholders and the public during the rulemaking**

**process; and consideration of measures endorsed by nationally-recognized organizations, such as the National Quality Forum (NQF).**

While CMS continues to prioritize inclusion of HAC and HCAC measures in its quality reporting and quality improvement programs wherever possible, such programs are only as strong as the quality measures they contain. Success in reducing HACs and HCACs across the care continuum will require investment in new measures of patient-harm. The measures developed and conditions selected should be evidence-based and accessible and meaningful to patients, providers, and purchasers. Measures should also be patient-centered, reflect a common format, and allow for measurement across the spectrum of care, independent of care transitions. Finally, to the extent possible, future measures should be aligned across value-based purchasing programs and quality reporting systems within CMS and HHS more broadly. CMS would coordinate HCAC measures developed for nursing homes or an HCAC nursing home program with any plan developed to implement a SNF value-based payment program.

As new quality reporting programs develop and expand, and as providers become accustomed to the requirements and methodology for reporting data, it will become possible to look beyond quality reporting to payment based on measure performance. Such payment reforms could include a variety of methods, including payment based on HAC/HAI identified rates, or the incorporation of HAC performance results into value-based purchasing programs that may be developed in the future.

- 3. The Secretary recommends further exploration of other payment policies that create incentives to reduce HACs, but recommends at this time that the case-based Hospital-Acquired Conditions (HAC) policy in Section 1886(d)(4)(D) not be extended to other facilities that are paid under Title XVIII of the Social Security Act (SSA).**

In accordance with section 3008(b) of the Affordable Care Act, the Secretary looked into the possibility of extending the case-based HAC policy to other facilities that are paid under Title XVIII of the SSA. Of the other Title XVIII payment systems studied, only the LTCH PPS uses a similar<sup>29</sup> MS-DRG patient classification system that is used for acute-care IPPS hospitals paid under IPPS. It is therefore the only setting covered in this report within which the current case-based HAC policy could be implemented without significant modifications to current reporting processes and claims processing. Notwithstanding the similarity of the LTCH PPS to IPPS, however, not all conditions treated in IPPS hospitals are treated in LTCHs, so not all IPPS HACs would be applicable to the LTCH setting. In addition, despite the IRF PPS's use of case mix groups (CMGs) instead of MS-DRGs for assigning payment, it may be possible to extend the HAC program to IRFs because some of the selected and previously-considered candidate conditions could result in a higher payment for a discharge. However, modifications to the IRF-PAI form or revision of CMS claims/payment processes would be needed in order to implement a case-based HCAC payment provision for IRFs. In addition, more study of potential conditions and determination of whether the required evidence-based guidelines exist are needed before feasibility can be accurately assessed for both LTCHs and IRFs.

Despite the probability of being able to apply a version of the case-based HCAC policy in the LTCH PPS and possibly to the IRF PPS, the Secretary does not recommend extending the current HAC program to LTCHs or IRFs at this time. While it may be operationally less difficult to implement such a policy for IRFs and LTCHs, we believe it would be prudent to wait for CMS to gain additional experience with the IPPS HAC policy and the quality measure reporting

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<sup>29</sup> The LTCH MS-DRGs are based on the Hospital DRGs, but are modified. While the classification system is the same, the relative weights are different based on the differing LTCH patient population resource use.

programs that are currently being implemented for LTCHs and IRFs under sections 1886(m)(5) and 1886(j)(7) of the Social Security Act.

With regard to LTCHs, however, we note that a case-based HCAC policy in LTCHs should be given consideration in the future. We believe that it is important to emphasize the need for quality improvement in LTCHs with regard to these types of conditions and that consideration should be given to the effectiveness of different types of payment policies in leading LTCHs to reduce HCACs and adopt practices that limit their occurrence. It would be important to undertake a comprehensive review of HCACs to evaluate their applicability in the LTCH setting, such as if the evidence-based guidelines can extend to the types of patients served by LTCHs. Furthermore, it would be helpful to determine if any adjustments to POA coding or quality measurement are needed so that HACs in LTCHs can be well-distinguished. This information will help guide future efforts in selecting the appropriate conditions for these healthcare settings.

Finally, extending a case-based HCAC program to the other types of facilities included in the report (hospitals excluded from IPPS, CAHs, SNFs, HOPDs, CAH OPDs, ASCs, FQHCs, and RHCs) is not feasible because those payment systems are not designed to identify a Medicare payment increase for the stay/encounter in which an HCAC occurs.

## **APPENDIX A**

SEC. 3008. PAYMENT ADJUSTMENT FOR CONDITIONS ACQUIRED IN HOSPITALS.

b) Study and Report on Expansion of Healthcare Acquired Conditions Policy to Other Providers-

(1) STUDY- The Secretary of Health and Human Services shall conduct a study on expanding the healthcare acquired conditions policy under subsection (d)(4)(D) of section 1886 of the Social Security Act (42 U.S.C. 1395ww) to payments made to other facilities under the Medicare program under title XVIII of the Social Security Act, including such payments made to inpatient rehabilitation facilities, long-term care hospitals (as described in subsection(d)(1)(B)(iv) of such section), hospital outpatient departments, and other hospitals excluded from the inpatient prospective payment system under such section, skilled nursing facilities, ambulatory surgical centers, and health clinics. Such study shall include an analysis of how such policies could impact quality of patient care, patient safety, and spending under the Medicare program.

(2) REPORT- Not later than January 1, 2012, the Secretary shall submit to Congress a report containing the results of the study conducted under paragraph (1), together with recommendations for such legislation and administrative action as the Secretary determines appropriate.

## **APPENDIX B**

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SEC. 5001. HOSPITAL QUALITY IMPROVEMENT.

(c) QUALITY ADJUSTMENT IN DRG PAYMENTS FOR CERTAIN HOSPITAL ACQUIRED INFECTIONS.—

(1) IN GENERAL.—Section 1886(d)(4) of the Social Security Act (42 U.S.C. 1395ww(d)(4)) is amended by adding at the end the following new subparagraph:

“(D)(i) For discharges occurring on or after October 1, 2008, the diagnosis-related group to be assigned under this paragraph for a discharge described in clause (ii) shall be a diagnosis-related group that does not result in higher payment based on the presence of a secondary diagnosis code described in clause (iv).

“(ii) A discharge described in this clause is a discharge which meets the following requirements:

“(I) The discharge includes a condition identified by a diagnosis code selected under clause (iv) as a secondary diagnosis.

“(II) But for clause (i), the discharge would have been classified to a diagnosis-related group that results in a higher payment based on the presence of a secondary diagnosis code selected under clause (iv).

“(III) At the time of admission, no code selected under clause (iv) was present.

“(iii) As part of the information required to be reported by a hospital with respect to a discharge of an individual in order for payment to be made under this subsection, for discharges occurring on or after October 1, 2007, the information shall include the secondary diagnosis of the individual at admission.

“(iv) By not later than October 1, 2007, the Secretary shall select diagnosis codes associated with at least two conditions, each of which codes meets all of the following requirements (as determined by the Secretary):

“(I) Cases described by such code have a high cost or high volume, or both, under this title.

“(II) The code results in the assignment of a case to a diagnosis-related group that has a higher payment when the code is present as a secondary diagnosis.

“(III) The code describes such conditions that could reasonably have been prevented through the application of evidence based guidelines.

The Secretary may from time to time revise (through addition or deletion of codes) the diagnosis codes selected under this clause so long as there are diagnosis codes associated with at least two conditions selected for discharges occurring during any fiscal year.

“(v) In selecting and revising diagnosis codes under clause (iv), the Secretary shall consult with the Centers for Disease Control and Prevention and other appropriate entities.

“(vi) Any change resulting from the application of this subparagraph shall not be taken into account in adjusting the weighting factors under subparagraph (C)(i) or in applying budget neutrality under subparagraph (C)(iii).”

(2) NO JUDICIAL REVIEW.—Section 1886(d)(7)(B) of such Act (42 U.S.C. 1395ww(d)(7)(B)) is amended by inserting before the period the following: “, including the selection and revision of codes under paragraph (4)(D)”.

## **APPENDIX C**