#### CRITICAL CARE SOCIETIES COLLABORATIVE (CCSC)



We help the world breather Critical Care Medicine

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February 9, 2012

Dear Dr. Winkler,

The Critical Care Societies Collaborative (CCSC) represents four U.S.-based critical care professional societies whose members include 100,000 clinicians and scientists. The societies comprising the collaborative include the American Association of Critical Care Nurses, the American College of Chest Physicians, the American Thoracic Society, and the Society of Critical Care Medicine.

The CCSC appreciates the opportunity to provide a response, on behalf of all four societies representing critical care medicine, to the National Quality Forum's request to identify areas in critical care medicine where measures do not exist, but if they did would improve the quality of care provided. As such, a CCSC Quality Improvement Task Force was convened to prepare a report for your consideration.

The members of the CCSC Quality Improvement Task Force and the leadership of the CCSC are privileged to partner with the NQF in this effort. Should you have any questions please do not hesitate to contact us.

Sincerely,

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## CRITICAL CARE SOCIETIES COLLABORATIVE (CCSC)



# Measure Gaps Areas in Critical Care Medicine

February 9, 2012

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#### Introduction

The assessment of the quality of care provided by medical practitioners is enhanced through the creation and implementation of performance measures. The National Quality Forum (NQF) has served as a major vehicle for the creation of performance measures. To date, in the discipline of critical care medicine, few performance measures have been implemented. This "measures gap" became a focus of the efforts of the Critical Care Societies Collaborative (CCSC), a joint effort of the presidents of the four main professional societies pertaining to the field of critical care medicine: the American Association of Critical-Care Nurses (AACN), the American College of Chest Physicians (ACCP), the American Thoracic Society (ATS), and the Society of Critical Care Medicine (SCCM).

In response to the perceived measures gap in critical care medicine, in 2011, the CCSC appointed a CCSC Quality Improvement Task Force, consisting of members from all four societies (Appendix A). The CCSC Quality Improvement Task Force subsequently met via teleconference in order to create a framework for the generation of several potential critical care performance measures to address the performance measures gap. The methodology and the results of this effort are provided below.

The CCSC Quality Improvement Task Force understands that the topics provided below only serve as a starting point for the generation of performance measures. The potential measure gaps listed below should serve only as a guide for where potential measures may exist and not as a statement of where measures should exist. Indeed, many of the gap areas listed below may not make good quality measures. The Task Force acknowledges the principles required by the NQF for performance measures: importance, scientific acceptability, usability, and feasibility, may not all be met by the proposed topics<sup>1</sup>, must be fully realized in order to proceed with any recommendation for a performance measure in critical care medicine. The Task Force recognizes much additional work is required. Yet, we are confident meaningful and widely accepted performance measures in the area of critical care medicine can be generated. The members of the CCSC Quality Improvement Task Force are privileged to partner with the NQF in this effort.

#### Methodology

Prior to the first CCSC Quality Improvement Task Force teleconference, ACCP staff developed a spreadsheet of all existing critical care medicine performance measures using the National Quality Measures Clearinghouse. ACCP staff categorized all of the measures by organ system and disease state and provided the following information about each measure:

- Measure Name
- Measure Description
- NQF Endorsement Status

• Description of national programs where existing performance measures are implemented.

All existing performance measures that were presented to the CCSC Quality Improvement Task Force were mapped to the national priorities that have been identified by the Institute of Medicine, National Priority Partners, and National Strategy for Quality Improvement in Health Care.

The Task Force reviewed the grid of measures and discussed each organ system and disease state that would be encountered in the critical care setting. For each category, the Task Force discussed whether or not the existing performance measures were sufficient or if correcting an existing measure gap would improve the quality of care provided. When the CCSC Quality Improvement Task Force identified a performance measure gap in a particular category, a Task Force member was assigned to provide rational for the need of a performance measure(s) in this area and provide evidence for this rationale. Evidence included clinical guidelines, peer-reviewed manuscripts in the medical literature, and/or data from quality improvement initiatives (eg, registry). A standardized form (Appendix B) was created to facilitate this process.

Once the CCSC Quality Improvement Task Force members submitted the completed rationale, and evidence base for each of the measure gap areas was completed and submitted, this report was drafted. Members of the CCSC Quality Improvement Task Force were then asked to complete a survey that prioritized these gap areas by importance, as defined by the NQF (Appendix C).<sup>2</sup>

The Task Force identified performance measure gaps in the following critical care areas. They are presented in order of suggested priority based on voting of the task force.

- Management of Sepsis
- Overuse in Blood Transfusions
- Ventilator-Associated Pneumonia and Mechanical Ventilation
- Risk Adjusted ICU Outcome
- Therapeutic Hypothermia
- Daily Chest Radiographs in ICU Patients
- Screening of Acute Lung Injury (ALI)/ARDS

Once a draft of this report was approved by the members of the CCSC Quality Improvement Task Force, the draft was forwarded to leadership of each of the CCSC membership organizations. Comments from leadership resulted in revision of the draft. It was then resubmitted to leadership of the CCSC member organizations for approval. Ultimately, the final document was approved by all four societies comprising the CCSC.

#### Management of Sepsis

Based on national discharge data reported by AHRQ (Elixhauser et al, Statistical Brief #122), sepsis was the sixth most common principal reason for hospitalization in the United States in 2009, accounting for 836,000 hospital stays. There were an additional 829,500 stays with a secondary diagnosis of sepsis for a total of 1,665,400 inpatient stays. Sepsis was the most expensive reason for hospitalization in 2009—totaling nearly \$15.4 billion in aggregate hospital costs. The in-hospital mortality rate for sepsis was 16.3%—more than eight times higher than mortality for all other diagnoses (2.0%)—resulting in more than 258,000 deaths. From 1993 to 2009, sepsis-related hospital stays increased by 153%, with an average annual increase of 6%. Medicare was the predominant payer for sepsis-related hospital stays, covering 58.1% of patients. Sepsis cases and sepsis-related deaths are expected to continue to increase with the aging of the population.<sup>3, 4</sup>

A survey of practitioners shows that there was poor compliance with evidence-based recommendations for sepsis care despite provider perception that adherence was very high.<sup>5</sup> There are wide variations in hospital-level mortality and cost in the United States, with a lack of clear association between hospital spending and mortality.<sup>6</sup>

Many sepsis patients initially present in the ED or ward, creating a potential opportunity to improve outcomes through hospital-based coordination of care, which is known to reduce mortality<sup>7,8,9</sup>health-care utilization and costs.<sup>10,11</sup> Provision of care requires coordination from pre-hospital identification and initial care, initial stabilization and care in the ED and/or ward, and, in some cases, transfer to an ICU. Coordination is also required among multiple providers, including physicians, nurses, pharmacists, and other allied health professionals.

Within the management of sepsis, there is an evidence base to support potential measure development for the following interventions:

- IV volume resuscitation
- Minimizing the time to broad spectrum antibiotic administration, with a maximum of 3 hours from suspicion of sepsis
- Collecting of blood cultures prior to giving antibiotics
- Measurements of serum lactate

#### IV volume resuscitation

A common finding in patients with septic shock, manifested by low blood pressure and/or other signs of organ hypoperfusion, such as elevated serum lactate levels, is intravascular volume depletion. The degree of the intravascular volume deficit in sepsis varies, yet nearly all patients require initial volume resuscitation and many patients require continuing fluid resuscitation over the first 24 h. Early fluid resuscitation is associated with improved outcomes for patients with ALI due to septic shock.<sup>12</sup> International guidelines recommend that patients with suspected hypovolemia be initially treated with at least 1,000 mL of crystalloid over 30 min to determine clinical response.<sup>13</sup>

In the first quarter of a multicenter quality improvement program for sepsis care, only 59.8% of patients received volume resuscitation consistent with guidelines.<sup>13</sup>

Timely fluid resuscitation avoids an error of *omission* in which indicated therapy is delayed or omitted. By improving outcomes, length of stay is reduced. This leads to lower likelihood of hospital-acquired conditions. This performance measure has been previously used as a core component of multicenter<sup>13</sup> and national quality improvement initiatives.<sup>14, 11</sup> Formalizing it as a national performance measure will provide direct targets for intervention that are closely linked with improvements in mortality and cost.

Therefore, we make the following recommendation that constitutes a measure gap regarding timely fluid resuscitation in patients with sepsis:

 IV fluid administration in septic shock and sepsis with elevated lactate levels (> 4mmol/L)

#### Time-sensitive use of appropriate antibiotics

In a multicenter observational study of antibiotics in septic shock, the median time to appropriate antibiotics was 6 h after shock.<sup>15</sup> In the first quarter of a multicenter quality improvement program for sepsis care, only 60.4% of patients received timely antibiotics.<sup>13</sup>

Multiple studies have demonstrated that delays in administration of appropriate antibiotics in patients with sepsis and other severe infections are associated with longer lengths of stay, higher costs, and higher mortality.<sup>16</sup> In septic shock, a multicenter cohort study demonstrated that every hour in delay of appropriate antibiotics was associated with a 7.6% higher mortality.<sup>15</sup> In a multicenter quality improvement project, the timely administration of broad-spectrum antibiotics was associated with significantly higher risk-adjusted survival.<sup>13</sup> Based on a preponderance of data, the current recommendations in the international guidelines for the management of severe sepsis and septic shock includes the administration of broad-spectrum antibiotic therapy within 1 h of the diagnosis of septic shock and severe sepsis.<sup>17</sup>

Therefore, we make the following recommendation that constitutes a measure gap regarding timely administration of antibiotics to patients with sepsis:

• Time to appropriate antibiotics in sepsis, severe sepsis, and septic shock

#### Collections of blood cultures

In the first quarter of a multicenter quality improvement program for sepsis care, only 64.5% of patients had blood cultures collected.<sup>14</sup> While collecting blood cultures has not been specifically associated with improved outcomes in sepsis, pathogens identified by blood cultures allow for customized therapy. As a result, this is a recommendation of the current Surviving Sepsis Guidelines.<sup>13</sup>

By obtaining blood cultures, antibiotic regimens can be customized to treat the specific infecting organism. This will result in less unneeded exposure to antibiotics, reducing complications associated with antibiotic use, including drug reactions, allergies and

adverse events, the development of drug-resistant organisms, and the occurrence of *Clostridium difficile* colitis.

This performance measure has been previously used as a core component of multicenter<sup>13</sup> and national quality improvement initiatives.<sup>14</sup>,<sup>18</sup>

• Blood cultures in suspected sepsis

## Measurement of serum lactate levels

While measurement of lactate levels has not been specifically associated with improved outcomes in sepsis, an elevated lactate value identifies patients at higher risk for poor outcomes.<sup>19,20</sup> Additionally, elevated lactate levels prompt the consideration of specific care practices toward hemodynamic optimization guided by either central venous oxygen saturation<sup>21</sup> or lactate clearance.<sup>22</sup> International guidelines<sup>13</sup> recommend that patients with elevated sepsis and elevated lactate values have additional therapies to reach these additional resuscitation goals. In the first quarter of a multicenter quality improvement program for sepsis care, only 61.0% of patients had lactate values measured consistent with guidelines.<sup>23</sup>

In addition, prior studies have shown that care prompted by measurement of lactate levels in sepsis patients reduces resource utilization and cost.<sup>24</sup> This leads to lower likelihood of hospital-acquired conditions. This performance measure has been previously used as a core component of multicenter<sup>13</sup> and national quality improvement initiatives.<sup>14, 11</sup> Formalizing it as a national performance measure will provide direct targets for intervention that are closely linked with improvements in mortality and cost.

Therefore, we make the following recommendation that constitutes a measure gap regarding timely fluid resuscitation in patients with sepsis:

• Measurement of lactate levels in patients with suspected sepsis

The CCSC is currently engaged in a process to revise and update the existing sepsis guidelines in support of these measure gaps as part of the Surviving Sepsis Campaign. The revised Surviving Sepsis guidelines are expected sometime in 2012. Rather than delay our gap analysis until after these new guidelines, we offer these potential gaps now in order to help inform the NQF process. However, the new guidelines represent a considerable international effort and we hope that all NQF processes take the existing forthcoming guidelines into consideration.

## **Overuse of Blood Transfusions**

Red blood cell (RBC) transfusions are indicated for hemorrhagic shock, particularly in patients who have reached critical oxygen delivery. However, in the ICU, most RBC transfusions are used to treat asymptomatic anemia.<sup>25, 26</sup> Between 40% and 50% of all ICU patients receive at least one allogenic RBC unit and average close to 5 units of RBCs during their ICU admission.<sup>27</sup> A multicenter randomized controlled trial found that using a transfusion trigger of a hemoglobin (Hgb) value of <7 g/dL (to maintain a value of 7-9 g/dL) in the ICU was associated with a lower mortality rate during hospitalization.<sup>28</sup> RBC

transfusion has been associated with pulmonary edema and fluid overload, fever, acute transfusion reactions, increased multisystem organ failure,<sup>29,</sup> transfusion-associated immunomodulation,<sup>30</sup> transfusion-associated leukocyte microchimerism,<sup>31</sup> transfusion-related ALI,<sup>32</sup> transfusion-associated circulatory overload,<sup>33</sup> and an increased risk of hospital-acquired infections.<sup>34</sup> RBC transfusions are also independently associated with longer ICU and hospital stays.<sup>35,36</sup> RBCs are a scarce and costly resource, and use for the treatment of moderate, asymptomatic anemia in ICU patients limits their availability for patients more likely to benefit from transfusion.

Multiple studies suggest that most RBC transfusions represent an overutilized therapy. This, by itself, would incur unneeded costs related to transfusion and limit a scarce resource. However, because RBC transfusions are also associated with significant morbidity and mortality and greater resource utilization, additional preventable complications and costs are incurred by this overutilization.

The Society of Critical Care Medicine published a practice management guideline<sup>37</sup> in concert with the Eastern Association for Surgery of Trauma and the American College of Critical Care Medicine. This guideline makes a Level 1 recommendation that a"restrictive" strategy of RBC transfusion (transfuse when Hgb <7 g/dL) is as effective as a liberal transfusion strategy (when Hgb <10 g/dL) in critically ill patients with hemodynamically stable anemia, except possibly in patients with acute myocardial ischemia.

Therefore, the Task Force makes the following recommendation that addresses a measure gap regarding the overuse of blood transfusions:

• Avoidance of red blood cell (RBC) transfusions in hemodynamically stable critically ill patients with blood Hgb ≥ 7 and without recent history of trauma or acute bleeding.

#### Ventilator-Associated Pneumonia and Mechanical Ventilation

Currently, the focus of care for patients as reflected in existing quality measures is on the prevention of Ventilator-Associated Pneumonia (VAP). Unfortunately, the current generally accepted definition of VAP is inadequate, and is subject to wide variability and inconsistency in its application. In 2009 the CCSC began discussions with the Department of Health and Human Services (HHS) [including the Centers for Disease Control and Prevention (CDC), Centers for Medicare and Medicaid Services (CMS), and the Agency for Healthcare Research and Quality (AHRQ)] to address this problem. Discussions by experts in the field have been held in an effort to summarize the known evidence on VAP measures and then identify the most accurate definition that could be used as a standard for everything from surveillance to clinical treatment. Key CCSC leaders held a face-to-face meeting at CDC Headquarters on September 19, 2011 to consider the issues of the ventilated patient, and to summarize evidence-based measures and interventions that would reduce the overall incidence of VAP and other Ventilator Associated Conditions (VAC). A task force has been created and is actively engaged in addressing these issues. The findings and final recommendations of this joint CDC-CCSC task force, when they become available, will provide an excellent framework for the development of future

guidelines and quality measures. Therefore, ideally any updates to existing VAP measures or new measures based on incidence or prevention of VAP would ideally be delayed until the report of this taskforce is complete.

However, in order to advance the topic of VAP quality we offer the following framework for improvement. Many existing measures and bundles currently in place have other benefits besides VAP prevention. The Gap Measures Task Force, therefore feels that the focus should shift to the provision of care for all patients supported by mechanical ventilation with acute respiratory failure. Such a focus should emphasize outcomes other than VAP, including shortening the duration of mechanical ventilation, preventing other ventilator-related complications, and reducing resource utilization.<sup>38</sup> We also suggest a reorganization of measures specifically targeted at VAP prevention and treatment.

#### Management of patients receiving mechanical ventilation

The Task Force recommends emphasizing individual components of the ventilator bundle likely to affect the incidence of VAP as independent performance measures, as stated above. We suggest moving some components of the existing "ventilator bundle" geared toward VAP prevention to measures targeted at patients receiving mechanical ventilation, in general. The justification for this reassignment is that data suggest that these interventions may have effects other than or in addition to reduction in VAP.

One element of the ventilator bundle, daily interruption of sedation, has been shown to decrease length of mechanical ventilation and decrease mortality.<sup>39</sup>

While meta-analysis of weaning executed under protocols has yielded mixed results with regard to shortening the duration of mechanical ventilation, the combination of a daily screen for weaning readiness, combined with a spontaneous breathing trial timed to coincide with a sedation interruption, has been shown to shorten the length of mechanical ventilation.<sup>40</sup>

The addition of a program of early mobility has been shown to increase ventilator-free days and shorten the length of delirium in patients receiving mechanical ventilation.<sup>41</sup> No specific recommendations can be made with regard to the best manner to successfully execute a mobility program.

A prospective cohort study at a single center designed an electronic "sniffer" to identify cases of ALI/ARDS.<sup>42</sup> Investigators also examined clinical recognition of ALI by bedside providers. Among the 325 patients developing ALI (based on expert review), only 86 (26.5%) were identified by the clinical team as having ALI. Significantly more patients not recognized as having ALI were exposed to potentially injurious mechanical ventilation (tidal volume > 8 mL/kg predicted body weight) compared with those identified as having ALI (70% vs 48%, P=.001). Tidal volumes over the course of mechanical ventilation were also higher in patients with ALI in whom ALI was not recognized (median 9.2 vs 8.0 mL/kg predicted body weight, P<.001). This shows that a significant number of patients with ALI is unrecognized, and, therefore, do not have evidence-based care provided.

ALI is also common and highly morbid. A prospective cohort study in King County, Washington, found a crude incidence of ALI of 78.9 per 100,000 person years.<sup>43</sup> This

extrapolates to national estimates of 190,000 cases of ALI, which are associated with 74,500 deaths and 3.6 million hospital days. Based on projected demographics, in 25 years, there will be an estimated 335,000 annual cases leading to 147,000 deaths.

Lung protective ventilation reduces mortality in patients with ALI.<sup>44</sup> Defined as a tidal volume of less than or equal to 6 ml/kg of ideal body weight and/or a plateau airway pressure of <=30 cm of H20, lung protective ventilation is still the only targeted treatment proven to reduce mortality in ALI. Despite this, many patients with ALI do not receive lung protective ventilation<sup>45</sup>. If electronic medical records (EMR) are available, the recognition of patients having ALI can be enhanced.<sup>46</sup> Since EMR implementation is still in its early stages at many institutions, a performance measure in this area would not be feasible; however, as EMR implementation escalates over time, data collection for this measure will become more attainable. Among those who have ALI, the administration of a safe tidal volume should be assured on an ongoing basis. Provision of evidence-based care for ALI/ARDS has been previously used as a core component of multicenter<sup>13</sup> and national quality improvement initiatives.<sup>47</sup>,<sup>18</sup>

There is considerable variability in outcomes in patients receiving mechanical ventilation. Patients cared for at institutions with a high volume of patients supported by mechanical ventilation have lower mortality rates.<sup>48</sup>. Despite a gap calling for a measure of the risk-adjusted duration of mechanical ventilation among survivors, the lack of a valid risk adjustment methodology prohibits this from consideration as a performance measure at the present time. Indeed, one recent study, published in abstract form, showed a fourfold variation in risk-adjusted length of stay for patients mechanically ventilated within a network of 49 community hospitals in the United States.<sup>49</sup>

Therefore, the Task Force makes the following recommendations for performance measures that are known to improve outcomes in patients who are mechanically ventilated:

- Daily interruption of sedation in patients receiving continuous IV sedation who are not alert and responsive to commands<sup>39</sup>
- The pairing of a daily sedation interruption with a ventilator weaning assessment and, if appropriate, a spontaneous breathing trial<sup>40</sup>
- Daily screening for the presence of ALI in sites using EMR<sup>46</sup>
- Patients with ALI should be assessed daily to have a tidal volume of < 6 mL/kg ideal body weight and/or a plateau pressure of 30 cm  $H_2O.50$

## Ventilator-associated pneumonia

The Task Force felt that the VAP "care bundle" minimizes the importance of each individual component measure and neglects the fact that many elements of the existing VAP bundle are known to have important effects outside of VAP reduction, including improved patient survival. The task force also notes that one of the components of the VAP care bundle, stress ulcer prophylaxis, may actually increase the risk of VAP.<sup>51</sup>

Therefore, the Task Force would like to make the following recommendations regarding measure gaps related to VAP:

(1) Dissolve the VAP care bundle and instead develop a new group of quality measures related to general evidence-based practices for patients requiring mechanical ventilation (described above.) These potential measure gaps would include care processes known to reduce morbidity and mortality in patients who are ventilated.

(2) Develop measures using the VAP-specific measure gaps supported by recent guidelines.<sup>52,53</sup> These may include measures for the following evidenced-based practices:

- Orotracheal rather than nasotracheal intubation to prevent VAP<sup>54</sup>;
- Subglottic secretion drainage to prevent VAP<sup>55</sup>;
- Elevating the head of bed to 45 degrees to prevent VAP<sup>56</sup>;
- Oral antiseptic administration to prevent VAP<sup>57</sup>;
- When empiric antibiotics are used to treat VAP, initial treatment based on qualitative endotracheal aspirates rather than quantitative bronchoscopic aspirates<sup>58</sup>; and
- No more than an 8-day course of antibiotics as treatment for uncomplicated VAP.<sup>59</sup>

All of these VAP prevention strategies are supported by randomized-controlled trials. However, not all have favorable cost-benefit profiles, and all have significant barriers, which may make widespread adoption unfeasible. Although we list them all here, we note that all may not be good quality measures.

## Risk Adjusted ICU Outcome

Despite decades of advances in the practice of critical care medicine, mortality in the ICU remains high.<sup>60</sup> Variation in outcomes across ICUs suggests that much of that mortality is preventable.<sup>61,62</sup> Existing NQF-endorsed measures related to ICU outcome are limited to inhospital mortality for ICU mortality and ICU length of stay. However, these measures fail to capture outcomes-important patients. In-hospital mortality is known to be biased by variation in discharge practices,<sup>63</sup> and ICU length of stay may be more related to operational issues than patient care.<sup>64</sup> Outcome-based quality measures are needed to benchmark hospitals on the full range of ICU outcomes important to patients. These may include measures addressing:

- 30-day risk-adjusted mortality, a mortality-based outcome measure that is less contingent on discharge practices<sup>65</sup>; and
  - Duration of mechanical ventilation (either in all patients or among survivors), a efficiency-based measure that is more strongly related to clinical care than ICU length of stay.<sup>40</sup>

#### Therapeutic Hypothermia

Multiple large-scale clinical trials demonstrate that initiation of therapeutic hypothermia after out-of-hospital cardiac arrest after ventricular fibrillation (VF) or ventricular tachycardia (VT) is associated with improved survival and reduced neurological

Disability.<sup>66</sup>,<sup>67</sup> The practice of therapeutic hypothermia in these patients, also know as targeted temperature management, is recommend by a multispecialty society clinical practice guideline.<sup>68</sup>

We recommend the development of quality measures related to therapeutic hypothermia. Such measures could address:

- The initiation of targeted temperature management in comatose survivors of out-ofhospital VF or VT arrest; and
- The successful application of targeted temperature management in patients for whom it is initiative, regarding both the correct depth of hypothermia and the correct duration of hypothermia.

## Daily Chest Radiographs in ICU Patients

A meta-analysis of eight studies with a total of 7,078 patients revealed that the elimination of daily routine chest radiography did not affect either hospital or ICU mortality, ICU or hospital length of stay, or ventilator days when compared with daily routine chest radiographs in this population. Regression analyses failed to identify any subgroup in which performing daily routine chest radiography was beneficial. The assessment of whether or not a given chest radiograph was medically required is a limiting factor to the feasibility of utilizing this directly.<sup>69</sup>

Therefore, the Task Force makes the following recommendation that addresses a measure gap regarding the outcomes in ICU patients:

• Presence of a protocol specifying that chest radiographs will only be obtained as clinically indicated in ICU patients.

## Screening of ALI/ARDS

Routinely identifying ALI/ARDS, will facilitate implementation of evidence-based therapies, specifically the use of lung protective ventilation as described above. Diagnosing ALI/ARDS identifies patients for whom specific care is indicated and, therefore, reduces the likelihood of *failure to recognize*. By improving outcomes after diagnosing ALI/ARDS and applying specific therapies, length of stay is reduced. This leads to lower likelihood of hospital-acquired conditions. Coordination is also required among multiple providers, including physicians and respiratory therapists.

Provision of evidence-based care for ALI/ARDS has been previously used as a core component of multicenter<sup>13</sup> and national quality improvement initiatives.<sup>70,18</sup>

The most recent Surviving Sepsis Campaign guidelines recommend a number of interventions for patients with ALI/ARDS due to severe sepsis and septic shock including:

• Screening of mechanically ventilated patients for ALI and ARDS

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## Support for a Measure Gap Area

## Section 1: Criteria for Measure Gap Area Selection

Desired chara	cteristics that support the identification of measure gap area
Gaps and Variations in	Documented evidence of deviation (or observed patterns of deviation) in care from established norms or standards of care.
Care	Gaps in care may be manifested by underuse, overuse, or misuse of health services.
Evidence Base	One or more national, widely-accepted clinical guidelines OR One or more documented quality improvement (QI) initiatives or research projects that have demonstrated improvement in the quality of care (based on measures of access, processes, outcomes or the patient experience of care)
High Impact	<ul> <li>High prevalence of the clinical problem or condition, significant burden of illness, high cost, or nationally identified clinical priority area (eg, Institute of Medicine, National Priority Partners) OR</li> <li>A measure topic that does not address a high prevalence condition or national priority, but should be a high impact area within a specialty area or medical domain.</li> </ul>

National Prioritie	es
These national pri	ority areas that have been identified by the Institute of Medicine,
National Priority P	artners, and National Strategy for Quality Improvement in Health
Care. Potential top	ics should feasibly foster measure development in these domains.
Care	Improve coordination of care among a patient's multiple
Coordination	providers and during entire episodes of illness addressing one
	of the following domains: healthcare "home" (ie, a source of
	usual care selected by the patient, integration of care across the
	community and longitudinally), proactive plan of care and
	follow-up, communication, integrated electronic information
	systems
Patient Safety	Reduce healthcare associated infections, including surgical
	site infection, catheter associated blood stream infections,
	catheter associated urinary tract infections, ventilator
	associated pneumonia.
	Reduce surgical mishaps: wrong site surgery, foreign objects
	retained after surgery, air embolism
	Reduce adverse drug events
	Reduce preventable complications: pressure ulcers, falls,

	blood product injury
Appropriateness/	Address at least one of nine targeted areas:
Overuse	<ul> <li>Inappropriate medication use</li> </ul>
Overuse	<ul> <li>Unnecessary laboratory tests</li> </ul>
	<ul> <li>Inappropriate maternity care interventions</li> </ul>
	<ul> <li>Inappropriate diagnostic procedures</li> </ul>
	<ul> <li>Inappropriate procedures</li> </ul>
	<ul> <li>Unnecessary consultations</li> </ul>
	<ul> <li>Preventable emergency department visits and hospitalizations</li> </ul>
	<ul> <li>Inappropriate non-palliative services at end of life</li> </ul>
	<ul> <li>Potentially harmful preventive services with no benefit</li> </ul>
Patient and	Health care should give each individual patient and family an
Family	active role in their care. Care should adapt readily to individual
Engagement	and family circumstances, as well as differing cultures,
Engagement	languages, disabilities, health literacy levels, and social
	backgrounds. Requires shared power and responsibility in
	decision-making and care management. It also requires giving
	the patient access to understandable information and decision
	support tools that help patients manage their health and
	navigate the health care delivery system.
	Examples include:
	<ul> <li>assuring integration of patients' feedback on their</li> </ul>
	preferences, desired outcomes, and experiences,
	<ul> <li>integrating patient-generated data in EHRs,</li> </ul>
	<ul> <li>finding additional ways to involve patients and families in</li> </ul>
	managing their care effectively.
Affordability of	Reduce redundant and harmful care, (by reducing health
care	care-acquired conditions);
	<ul> <li>Establish common measures to assess the cost impact of</li> </ul>
	new programs and new payment systems on families,
	employers, and the public sector, along with how well these
	programs support innovation and effective care;
	<ul> <li>Build measurement of cost and resource use—along with</li> </ul>
	patient experience and outcomes—
	<ul> <li>Reduce waste from undue administrative burdens;</li> </ul>
	<ul> <li>Make health care costs and quality more transparent to</li> </ul>
Dromotion of	consumers and providersThe broad goal of promoting better health and healthy behaviors such as:
Promotion of	<ul> <li>not using tobacco or</li> </ul>
Best Practices for	<ul> <li>fostering healthy environments that make it easier to exercise and</li> </ul>
to foster	<ul> <li>access to healthy foods.</li> </ul>
population health	<ul> <li>adoption of clinical preventive services for children and adults.</li> </ul>
Quality	Measures that can be used in quality improvement
Improvement	collaboratives that can accelerate the spread of measures use.
Collaboratives	

# Section 2: Information required for preliminary review (section 2 should not exceed four pages)

**Measure gap topic area:** *Provide information on the aspect of care that this measure gap area would address.* 

Existing relevant quality measures (if any)

**Documentation of gap and/or variation in care:** *Provide evidence (including citations to source) that demonstrate a quality gap or room for improvement in the measure topic area* 

**Evidence base to support measure the need for measure development:** *Provide a list of applicable guidelines including a description of the guideline development methodology or rating scheme for the strength of the evidence/ recommendation. If a QI initiative, provide evidence (including citations to source) that demonstrate improvement in the quality of care.* 

**Potential impact of topic area**: Include data regarding prevalence, burden of illness (estimates of morbidity and mortality), cost, or national identification as clinical priority area

Provide evidence (including citations to source) or the rational (if evidence does not exist) that demonstrate how the development of measures in this gap area would address the following national priorities (choose all the apply- if a national priority does not apply leave blank).

**Care coordination** 

**Patient safety** 

Appropriateness/overuse

Affordability of and access to care

Patient and family engagement

Promotion of best practices for health living

Existing QI initiative or collaborative for measure implementation

Appendix C

м	leasure details			Endorse Status	Implem	entation			Mapping Priority	to Nationa	al					
l to: Me	easure Category	Measure Name	Measure Description	NQF	PQRS	HEDIS	Hospital Compare	2013 Hospital VBP	Care	Patient Sa	fety Approp ss/ove			Promotion of best practices for health living	Developer	NQF Endorsed Date
PL	JLMONARY															
	STHMA- 25 easures				10	2	2	2	0	5	1	12	0	7 3	3	
PIG	easures				10	2	2	2	0						HRSA Health	
															Disparities	
			This measure is used to assess the percent of							1				1	Collaboratives:	
٨٥	sthma	documented self-management goals in the last 12 months	patients with documented self-management goals in the last 12 months.	1											Asthma Collaborative	
AS	Suma														HRSA Health	
															Disparities	
			This measure is used to assess the percent of											1	Collaboratives:	
• -		severity assessment at last contact	patients with a severity assessment at last contact												Asthma	
AS	sthma	(visit or phone).	(visit or phone).												Collaborative HRSA Health	
			This measure is used to assess the average number												Disparities	
			of symptom-free days in the previous two weeks											1	Collaboratives:	
		Asthma: average number of symptom-	among patients with asthma who report symptom-												Asthma	
As	sthma	free days in the previous two weeks.	free days.												Collaborative	
			This measure is used to assess the percent of													
			patients older than 5 years with a National Heart, Lung, and Blood Institute (NHLBI) classification of												HRSA Health	
		5 years with moderate or severe	moderate or severe persistent asthma who have											1	Disparities	
		persistent asthma who have	established a "personal best" peak flow through												Collaboratives:	
		established a "personal best" peak	multiple measurements during a period of relative												Asthma	
As	sthma	flow.	disease stability.												Collaborative	
		Asthma: percent of patients evaluated	<b>T</b> I:													
		for environmental triggers other than environmental tobacco smoke (dust	This measure is used to assess the percent of patients evaluated for environmental triggers other												HRSA Health Disparities	
		mites, cats, dogs, molds/fungi,	than environmental tobacco smoke (dust mites,												Collaboratives:	
			cats, dogs, molds/fungi, cockroaches) either by												Asthma	
As	sthma	exposure and/or by allergy testing.	history of exposure and/or by allergy testing.												Collaborative	
															HRSA Health	
			This measure is used to assess the percent of									1			Disparities	
		had a visit to an Emergency	patients who have had a visit to an Emergency Department (ED)/Urgent Care office for asthma in									I			Collaboratives: Asthma	
As	sthma	asthma in the past six months.	the past six months.												Collaborative	
, 10		Diagnosis and management of asthma:													conaborative	
		percentage of patients with asthma														
		who return to the emergency	This measure is used to assess the percentage of									1				
		department (ED) for treatment of	patients with asthma who return to the emergency												Institute for Clinica	l
Δs	sthma	asthma within 30 days of last visit to the ED.	department (ED) for treatment of asthma within 30 days of last visit to the ED.												Systems Improvement	
713															HRSA Health	
															Disparities	
		Asthma: percent of patients with a	This measure is used to assess the percent of												Collaboratives:	
		reported exposure to environmental	patients with a reported exposure to environmental												Asthma	
As	sthma	tobacco smoke at last visit.	tobacco smoke at the last visit.												Collaborative HRSA Health	
			This measure is used to assess the average number of lost workdays and/or school days in the past 30												Disparities	
		Asthma: average number of lost	days among patients with asthma who have been							1				1	Collaboratives:	
		workdays and/or school days in the	queried about lost work or school days at last												Asthma	
As	sthma	past 30 days.	contact.												Collaborative	
			This measure is used to assess the percent of												HRSA Health	
		Asthma: percent of patients with	patients with an underlying National Heart, Lung, and Blood Institute (NHLBI) classification of									1			Disparities Collaboratives:	
		persistent asthma at last contact who are on an anti-inflammatory	persistent asthma at last contact who are on anti-												Asthma	
As	sthma	medication.	inflammatory medication.												Collaborative	
															HRSA Health	
															Disparities	
	the second second	Asthma: percent of patients with a	This measure is used to assess the percent of								1				Collaboratives:	
	sthma and	documented screening for depression	patients with a documented screening for												Asthma	
De	epression	in the past 12 months	depression in the past 12 months.												Collaborative	

	Measure details			Endorse Status	Implemer	ntation			Mapping t Priority							
Area	Measure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measure	HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safety	Appropriatene ss/overuse	Affordability of and acces to care	Patient and s family engagement	Promotion of best practices for health living	Developer	NQF Endorse Date
issigned to.	Heasure category	rieasure Name		Lindorsed	Measure		compare	VDF						-	HRSA Health	Date
		Asthma: percent of patients who have	This measure is used to assess the percent of											4	Disparities   Collaboratives:	
	Asthma and influenza	a record of influenza immunization in	patients who have a record of influenza												Asthma	
		the past 12 months.	immunization in the past 12 months.												Collaborative	
		Diagnosis and management of asthma:														
		percentage of patients with asthma with education about asthma	This measure is used to assess the percentage of patients with asthma with education about asthma							1				1	Institute for Clinical Systems	
	Asthma	documented in the medical record.	documented in the medical record.												Improvement	
	, locinina	Diagnosis and management of asthma:													Improvement	
		percentage of patients with asthma	This measure is used to assess the percentage of													
		with spirometry or peak flow meter reading documented in the medical	patients with asthma with spirometry or peak flow meter reading documented in the medical record at									1			Institute for Clinical Systems	
	Asthma	record at the last visit	the last visit.												Improvement	
			This measure is used to assess the percentage of													
			enrolled members 5 to 56 years of age during the													
			measurement year who were identified as having persistent asthma and who were appropriately													
			prescribed medication during the measurement													
			year.													
		1 5	This process measure evaluates whether members									1				
		56 years of age during the measurement year who were identified	with persistent asthma are being prescribed medications that are acceptable as primary therapy													
			for long-term asthma control. The list of acceptable													
		were appropriately prescribed	medications is derived from the National Heart,												National Committee	
	Asthma	medication during the measurement year.	Lung and Blood Institute's (NHLBI) National Asthma Education Prevention Program (NAEPP) guidelines.		1		1								for Quality Assurance	1-Ma
	Astrina	Diagnosis and management of asthma:	Education revention rogram (MAErr) guidennes.		1		1								Assurance	1-140
		percentage of children with	This measure is used to assess the percentage of									1			Institute for Clinical	
	Asthma	uncontrolled asthma who are on inhaled corticosteroids medication.	children with uncontrolled asthma who are on inhaled corticosteroids medication.									•			Systems	
	Astillia														Improvement	
		Diagnosis and management of asthma:														
		percentage of controlled asthma	This measure is used to assess the percentage of									1			Institute for Clinical	
	Asthma	provider every one to six months.	controlled asthma patients who are seen by a health care provider every one to six months.	1											Systems Improvement	
			Percentage of patients aged 5 through 40 years with	า												
			a diagnosis of asthma who were evaluated during at	ī.											Physician	
			least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal												Consortium for Performance	
	Asthma	Asthma assessment	asthma symptoms.		1 1										Improvement	10-Au
		Children's asthma care: percent of														
		pediatric asthma in patients with documentation that they or their	This measure* is used to assess whether there is documentation in the medical record that a Home												Centers for Medicare	-
			Management Plan of Care (HMPC) document was							1					& Medicaid	-
		Management Plan of Care (HMPC)	given to the pediatric asthma patient/caregiver.												Services/The Joint	
	Asthma	document.	This measure is used to assess the number of		1										Commission Agency for	15-Ma
			admissions for asthma in adults per 100,000												Healthcare Research	ı
	Asthma	Adult asthma: hospital admission rate	population.		1										and Quality	15-No
			Percentage of patients who were identified as													
			having persistent asthma during the measurement year and the year prior to the measurement year													
			and who were dispensed a prescription for either an									I			National Committee	
		Use of appropriate medications for	inhaled corticosteroid or acceptable alternative		1		1								for Quality	10 4.
	Asthma	people with asthma	medication during the measurement year		1		1								Assurance American Medical	10-Au
			Percentage of all patients with mild, moderate, or												Association -	
			severe persistent asthma who were prescribed									1			Physician	
			either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative												Consortium for Performance	
	Asthma	Asthma: pharmacologic therapy	treatment		1 1										Improvement	8/10
			This measure is used to assess the percent of												-	
		Children's asthma care: percent of	pediatric patients admitted for inpatient treatment									1				
		pediatric asthma in patients who received relievers during	of asthma who received relievers during hospitalization.												The Joint	
	Asthma	hospitalization.			1			1							Commission	9-Ma

	Measure details			Endorse Status	Implen	nentation			Mapping Priority	to National						
Area	Maaaura Catagomi	Mazaura Nama	Managura Description	NQF	PQRS		Hospital	2013 Hospital	Care coordination	Patient Safet	Appropriaten y ss/overuse	e Affordability of and access to care	Patient and family engagement	Promotion of best practices for health living		NQF Endorsed
assigned to:	Measure Category	Measure Name Children's asthma care: percent of pediatric asthma inpatients who received systemic corticosteroids during hospitalization.	Measure Description This measure* is used to assess the percent of pediatric patients admitted for inpatient treatment of asthma who received systemic corticosteroids during hospitalization. *This is a Joint Commission only measure. Rate 1: The percentage of patients with persistent asthma who were dispensed more than 5 canisters of short-acting beta2 agonist inhaler during the same three-month period. Rate 2: The percentage of patients with persistent asthma during the measurement year who were dispensed more than five canisters of short-acting beta2agonist inhalers over a 90-day period and who did not receive		Measur 1	e HEDIS	Compare	<b>VBP</b>				1		innig	Developer The Joint Commission	Date 9-Mar-07
	Asthma	Suboptimal Asthma Control (SAC) and Absence of Controller Therapy (ACT)	controller therapy during the same 90-day period. The full detailed measure specifications have also been submitted as a separate attachment. Percentage of patients for whom there is documentation that a written asthma management plan was provided either to the patient or the patient's caregiver OR, at a minimum, specific written instructions on under what conditions the patient's doctor should be contacted or the patient should		1					1				1	National Committee for Quality Assurance	5-Aug-09
	Asthma	Management plan for people with asthma	go to the emergency room		1										IPRO	8/10/2009
	BRONCHITIS- 3 measures				2	1	2	0	0	0	0	3	0	0 0	,	
	Bronchitis Bronchitis	age with a diagnosis of acute bronchitis	This measure summarizes data on outpatient utilization of drug prescriptions, stratified by age, during the measurement year. The following data are reported: -Total cost of prescriptions -Average cost of prescriptions per member per year (PMPY) -Total number of prescriptions PMPY Percentage of patients who were diagnosed with bronchitis and were dispensed an antibiotic on or within three days after the episode date This measure is used to assess the percentage of adults 18 to 64 years of age with a diagnosis of acute bronchitis who were not* dispensed an antibiotic prescription on or three days after the Index Episode Start Date (IESD). This measure assesses whether antibiotics were inappropriately prescribed for healthy adults 18-64 years of age with bronchitis, and builds on an s existing HEDIS measure that targets inappropriate antibiotic prescribing for children with upper respiratory infection (URI).		1	1	1					1			National Committee for Quality Assurance National Committee for Quality Assurance National Committee for Quality Assurance	8/10/2009
	UPPER RESPIRATORY				1	0	0	0	0	1	0	3	0	1 (		
	INFECTION- 4 measures					-										
	URI	upper respiratory infection (URI):	This measure is used to assess the percentage of children 3 months to 18 years of age who were given a diagnosis of upper respiratory infection (URI) and were not* dispensed an antibiotic prescription on or three days after the Index Episode Start Date (IESD).		1							1			National Committee for Quality Assurance	9-Aug-10
	Respiratory illiness		This measure is used to assess the percentage of encounters for cold symptoms (phone care and/or office visits) for which there is documentation of home treatment education.							1				1	Institute for Clinical Systems Improvement	

	Measure details			Endorse Status	Implen	nentation			Priority	g to Nationa						
	N	Maaauna Nama	Manager Description	NQF	PQRS		Hospital	2013 Hospital VBP	Care coordinati	on Patient Safe	Appropriatene ty ss/overuse	Affordability of and access to care		Promotion of best practices for health living		NQF Endorse
to:		Measure Name Diagnosis and treatment of respiratory	Measure Description	Endorsed	Measur	e HEDIS	Compare	VBP							Developer	Date
ł	Respiratory illiness	visit for cold symptoms who have had symptoms for less than seven days and who receive an antibiotic. Diagnosis and treatment of respiratory	This measure is used to assess the percentage of patients with an office visit for cold symptoms who have had symptoms for less than seven days and who receive an antibiotic.									1			Institute for Clinical Systems Improvement http://www.qualitym	
		illness in children and adults:	This measure is used to assess the percentage of									1			easures.ahrq.gov/su mmary/summary.as	
		of pharyngitis who had strep screen	patients with a diagnosis of pharyngitis who had									1			px?doc_id=12299&s	
		testing	strep screen testing.												tring=asthma	
	PNEUMONIA- 8 measures				8	0	0	2	1	5	4 .	5	0	0 1		
	Pneumonia	Pneumonia (PN) 30-Day Mortality Rate Pneumonia: percent of patients who	Hospital-specific, risk standarized, all-cause 30-day mortality (defined as death from any cause within 30 days after the index admission date) for patients discharged from the hospital with a principal diagnosis of pneumonia.		1										Agency for Healthcare Research and Quality	
		were transferred or admitted to the intensive care unit (ICU) within 24 hours of hospital arrival, who had blood cultures performed within 24 hours prior to or 24 hours after hospital arrival.	This measure is used to assess the percent of pneumonia patients transferred or admitted to the intensive care unit (ICU) within 24 hours of hospital arrival, who had blood cultures performed within 24 hours prior to or 24 hours after hospital arrival.		1					1	1	1			Centers for Medicare & Medicaid Services/The Joint Commission	15-Ma
		Pneumonia: median time from arrival at the hospital to the administration of the first dose of antibiotic at the	This measure is used to assess the median time from arrival at the hospital to the administration of the first dose of antibiotic at the hospital for		-					·	1	1				13 14
F		hospital Pneumonia: percent of patients who receive their first dose of antibiotics within 6 hours after arrival at the	patients with pneumonia. This measure is used to assess the percent of pneumonia patients who receive their first dose of antibiotics within 6 hours after arrival at the		1					1	1	1			Joint Commission Centers for Medicare & Medicaid Services/The Joint	
ſ	Pneumonia	Blood cultures performed in the	hospital. Percentage of pneumonia patients 18 years of age and older who have had blood cultures performed in		1			1		1					Commission	
ł		emergency department prior to initial antibiotic received in hospital	the emergency department prior to initial antibiotic received in hospital This measure is used to assess the percent of pneumonia patients with a history of smoking cigarettes who are given smoking cessation advice		1				1	1	1	1			Centers for Medicare & Medicaid Services	3/9
	Pneumonia- Smoking	Pneumonia: percent of patients with a history of smoking cigarettes who are given smoking cessation advice or counseling during hospital stay	or counseling during the hospital stay. For the purposes of this measure, a smoker is defined as someone who has smoked cigarettes anytime during the year prior to hospital arrival.		1			1		1					Centers for Medicare & Medicaid Services/The Joint Commission	
I	Pneumonia	Pneumonia: mortality rate.	This measure is used to assess mortality in discharges with principal diagnosis code of pneumonia. Pneumonia care occurs in an outpatient setting, and selection bias may be a problem for this indicator. In addition, 30-day mortality may be somewhat different than in-hospital mortality, leading to information bias. Risk adjustment for clinical factors is recommended.		1										Agency for Healthcare Research and Quality	9-Mi
		Pneumonia (PN): hospital 30-day, all- cause, risk-standardized readmission rate (RSRR) following pneumonia	This measure* is a hospital-specific, risk- standardized, all-cause 30-day readmission (defined as readmission for any cause within 30 days from the date of discharge of the index admission) for patients discharged from the hospital with a									1			Centers for Medicare	
		hospitalization. NIZATION- 9 measures	principal discharge diagnosis of pneumonia.		1 8	1	0	3	1	1	0	9	0	0 9	& Medicaid Services	28-0
F	Pneumonia -	Pneumonia Vaccination	Percentage of patients who ever received a pneumococcal vaccination		1							1			National Committee for Quality Assurance	8/10/

Mea	asure details			Endorse Status	Implem	entation			Mapping Priority	to Nationa	11					
				NQF	PQRS		Hospital	2013 Hospital	Care coordination	n Patient Safe	ety Appropriate ss/overuse	ne Affordability of and acces to care		Promotion of best practices for health living	3	NQF Endor
o: Meas	sure Category	Measure Name	Measure Description Pneumonia patients, age 65 and older, who were	Endorsed	Measure	HEDIS	Compare	VBP							Developer	Date
			screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if									1			1 National Committee	
Pneur	ımonia -		indicated.												for Quality	
Immu		Pneumonia Vaccination			1			1	1						Assurance	5
		Pneumonia: percent of patients age 50														
			This measure is used to assess the percent of													
		October, November, December,	pneumonia patients age 50 years and older, hospitalized during October, November, December,									1			1 Centers for Medicare	
		screened for influenza vaccine status	January, February, or March who were screened for												& Medicaid	
Pneur			influenza vaccine status and were vaccinated prior												Services/The Joint	
Immu		if indicated	to discharge, if indicated.		1			1							Commission	
			Percentage of patients aged 1 month or older who												National Committee	
	imonia -		were prescribed Pneumocystis jiroveci pneumonia									1			1 for Quality	
Immu		PCP prophylaxis	(PCP) prophylaxis.		1										Assurance	
			This measure is used to assess the percent of												Contors for Madianes	
		65 and older who were screened for	pneumonia patients, age 65 and older, who were screened for pneumococcal vaccine status and were									1			Centers for Medicare 1 & Medicaid	2
Pneur		administered the vaccine prior to	administered the vaccine prior to discharge, if									I			Services/The Joint	
		discharge, if indicated.	indicated.		1										Commission	9
															National Committee	
Pneur	ımonia -	Pneumonia vaccination status for older	Percentage of patients 65 years of age and older									1			1 for Quality	
Immu	unization	adults	who ever received a pneumococcal vaccination		1	1									Assurance	1
			Percentage of patients with pneumonia, age 65 and												Centers for Medicare	9
_			older, who were screened for pneumococcal vaccine									1			1 & Medicaid	
	imonia -	Proumococcol vaccination	status and were vaccinated prior to discharge, if indicated.		1			1							Services/The Joint Commission	
1111110	iunization	Pneumococcal vaccination	illuicateu.		T			T							COMMISSION	
Pneur	ımonia -	Pneumococcal Polysaccharide Vaccine	Percentage of patients who have ever received									1			1 Centers for Medicare	2
		,	Pneumoncoccal Polysaccharide Vaccine (PPV)		1										& Medicaid Services	
			This measure is used to assess the percentage of													
		percent of eligible and willing short-	eligible and willing short-stay (post-acute care)									1			1	
			nursing home residents with an up-to-date									•			Centers for Medicare	9
Immu	unization	given pneumococcal vaccination	pneumococcal vaccination.							1		_			& Medicaid Services	
	=	RED BACTERIAL PNEUMONIA (CAP)	This was a second to second the second second		6	4	0	0	1	8	1	7	0	0	5	
	munity Acquired erial Pneumonia	Bacterial pneumonia: hospital	This measure is used to assess the number of admissions for bacterial pneumonia per 100,000												Agency for Healthcare Research	
(CAP)		admission rate	population.		1										and Quality	1
(0/11)	/		This measure is used to assess the percentage of		-										una Quanty	-
			patients aged greater than or equal to 18 years												Physician	
Comn		pneumonia: percentage of patients	diagnosed with community-acquired bacterial							1		1			Consortium for	
		who were assessed for co-morbid	pneumonia who were assessed for co-morbid												Performance	
(CAP)	)	conditions	conditions.												Improvement	
			This measure is used to assess the percentage of												Physician	
		Community-acquired bacterial	patients aged greater than or equal to 18 years									1			1 Consortium for	
(CAP)		pneumonia: percentage of patients with hydration status assessed	diagnosed with community-acquired bacterial pneumonia for whom hydration status is assessed.												Performance Improvement	
(CAP)	)	with hydration status assessed	This measure is used to assess the percentage of												Improvement	
	munity Acquired	Community-acquired bacterial	patients aged greater than or equal to 18 years												Physician	
Comn	municy Acquireu											1			1 Consortium for	
	erial Pneumonia	pneumonia: percentage of patients	diagnosed with community-acquired bacterial												Performance	
Bacte		pneumonia: percentage of patients who were assessed for pneumococcus	diagnosed with community-acquired bacterial pneumonia who were assessed for pneumococcus												Improvement	
Bacte (CAP)		pneumonia: percentage of patients who were assessed for pneumococcus immunization status	pneumonia who were assessed for pneumococcus immunization status.													
Bacte (CAP)	) and	who were assessed for pneumococcus immunization status	pneumonia who were assessed for pneumococcus													
Bacte (CAP)	?) and nunization	who were assessed for pneumococcus immunization status	pneumonia who were assessed for pneumococcus immunization status.													
Bacte (CAP) Immu	P) and unization	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial							1					<sub>1</sub> Physician	
Bacte (CAP) Immu Comn	P) and unization munity Acquired	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients who had a documented rationale for	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a documented rationale for							1					Consortium for	
Bacte (CAP) Immu Comn Bacte	P) and nunization munity Acquired erial Pneumonia	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients who had a documented rationale for level of care based on severity and	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a documented rationale for level of care based on severity and safety of home							1					Consortium for Performance	
Bacte (CAP) Immu Comn	P) and nunization munity Acquired erial Pneumonia	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients who had a documented rationale for	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a documented rationale for level of care based on severity and safety of home care.							1					Consortium for Performance Improvement	
Bacte (CAP) Immu Comn Bacte (CAP)	?) and iunization munity Acquired erial Pneumonia ?)	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients who had a documented rationale for level of care based on severity and safety of home care	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a documented rationale for level of care based on severity and safety of home care. This measure is used to assess the percentage of							1					Consortium for Performance Improvement Physician	
Bacte (CAP) Immu Comn Bacte (CAP) Comn	) and nunization munity Acquired erial Pneumonia ) munity Acquired	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients who had a documented rationale for level of care based on severity and safety of home care Community-acquired bacterial	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a documented rationale for level of care based on severity and safety of home care. This measure is used to assess the percentage of patients aged greater than or equal to 18 years							1		1			Consortium for Performance Improvement Physician Consortium for	
Bacte (CAP) Immu Comn Bacte (CAP) Comn Bacte	<ul> <li>and nunization</li> <li>munity Acquired erial Pneumonia</li> <li>munity Acquired erial Pneumonia</li> </ul>	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients who had a documented rationale for level of care based on severity and safety of home care Community-acquired bacterial pneumonia: percentage of patients	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a documented rationale for level of care based on severity and safety of home care. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial							1		1			Consortium for Performance Improvement Physician Consortium for Performance	
Bacte (CAP) Immu Comn Bacte (CAP) Comn	<ul> <li>and nunization</li> <li>munity Acquired erial Pneumonia</li> <li>munity Acquired erial Pneumonia</li> </ul>	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients who had a documented rationale for level of care based on severity and safety of home care Community-acquired bacterial	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a documented rationale for level of care based on severity and safety of home care. This measure is used to assess the percentage of patients aged greater than or equal to 18 years							1		1			Consortium for Performance Improvement Physician Consortium for	
Bacte (CAP) Immu Bacte (CAP) Comn Bacte (CAP)	?) and iunization munity Acquired erial Pneumonia ?) munity Acquired erial Pneumonia ?)	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients who had a documented rationale for level of care based on severity and safety of home care Community-acquired bacterial pneumonia: percentage of patients	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a documented rationale for level of care based on severity and safety of home care. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial							1		1			Consortium for Performance Improvement Physician Consortium for Performance Improvement	
Bacte (CAP) Immu Comm Bacte (CAP) Comm Bacte (CAP) Comm	<ul> <li>and</li> <li>munization</li> <li>munity Acquired</li> <li>erial Pneumonia</li> <li>munity Acquired</li> <li>erial Pneumonia</li> <li>munity Acquired</li> </ul>	who were assessed for pneumococcus immunization status Community-acquired bacterial pneumonia: percentage of patients who had a documented rationale for level of care based on severity and safety of home care Community-acquired bacterial pneumonia: percentage of patients with a chest x-ray performed	pneumonia who were assessed for pneumococcus immunization status. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a documented rationale for level of care based on severity and safety of home care. This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who had a chest x-ray performed.							1		1			Consortium for Performance Improvement Physician Consortium for Performance Improvement Physician	

	Measure details			Endorse Status	Implementation			Mapping t Priority	o Nationa	I					
Area assigned to:	: Measure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measure HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safe	Appropria ty ss/overus	tene of and acc	ty Patient and ess family engagement	Promotion of best practices for health living	Developer	NQF Endorsed Date
	Community Acquired Bacterial Pneumonia (CAP) and smoking cessation	Community-acquired bacterial pneumonia: percentage of patients who were queried about smoking	This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who were queried about smoking. This measure is used to assess the percentage of						1					Physician Consortium for Performance Improvement	
	Community Acquired Bacterial Pneumonia (CAP) and smoking cessation	Community-acquired bacterial pneumonia: percentage of patients who received a smoking cessation intervention Pneumonia: percent of	patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who received a smoking cessation intervention.						1					Physician Consortium for Performance Improvement	
	Community Acquired Bacterial Pneumonia (CAP)	immunocompetent intensive care unit (ICU) patients with community- acquired pneumonia who receive an initial antibiotic regimen during the first	This measure is used to assess the percent of immunocompetent intensive care unit (ICU) patients t with community-acquired pneumonia (CAP) who receive an initial antibiotic regimen during the first 24 hours that is consistent with current guidelines. This measure is used to assess the percentage of		1				1		1			Centers for Medicare & Medicaid Services, Joint Commission	9-Mar-07
	Community Acquired Bacterial Pneumonia (CAP)	Vital Signs for Community-Acquired Bacterial Pneumonia	patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia for whom vital signs (temperature, pulse, respiratory rate, and blood pressure) documented and reviewed.		1 1				1		1			Physician Consortium for Performance Improvement American College of Emergency	1-May-07
	Community Acquired Bacterial Pneumonia (CAP)	Assessment of Oxygen Saturation for Community Acquired Bacterial Pneumonia	Percentage of patients aged 18 years and older with the diagnosis of community-acquired bacterial pneumonia with oxygen saturation documented and reviewed.		1 1									Physicians/ National Committee for Quality Assurance/Physician Consortium for Performance Improvement American College of Emergency Physicians/ National Committee for	1-May-07
	Community Acquired Bacterial Pneumonia (CAP)	Assessment of Mental Status for Community Acquired Bacterial Pneumonia	Percentage of patients aged 18 years and older with the diagnosis of community-acquired bacterial pneumonia with mental status assessed.		1 1				1	1				Quality Assurance/Physician Consortium for Performance Improvement	1-May-07
	VENTILATOR ASSOC Ventilator Associated Pneumonia (VAP)	Infection rate reduction: number of ventilator-associated pneumonia (VAP) infections per 1,000 ventilator days	This indicator expresses the number of ventilator- associated pneumonia (VAP) infections in a facility in a given month using a standardized ratio of number of VAP infections per 1000 ventilator days.		2 0	0	0	0	1	1	2	0	0 (	) NQMC: http://www.qualitym easures.ahrq.gov/su mmary/summary.as px?doc_id=12124&s tring=VAP	

	Measure details			Endorse Status	Implementation			Mapping to Priority							
irea				NQF	PQRS Measure HEDIS	Hospital	2013 Hospital		Patient Safet	Appropriater y ss/overuse	Affordability of and access to care		Promotion of best practices for health living		NQF Endorsed
signed to:	Measure Category	Measure Name	Measure Description	Endorsed	Measure nebis	Compare	VBP							Developer	Date
			Percentage of intensive care unit patients on mechanical ventilation at time of survey for whom all four elements of the ventilator bundle are documented and in place. The ventilator bundle elements are: Head of bed (HOB) elevation 30 degrees or greater (unless medically contraindicated); noted on 2 different shifts within a 24 hour period, daily sedation interruption, and daily assessment of readiness to extubate; process includes interrupting sedation until patient follow commands and patient is assessed for discontinuation of mechanical ventilation; parameters of discontinuation include: resolution of reason for intubation; inspired oxygen content roughly 40%; assessment of patients ability to defend airway after extubation due to heavy sedation; minute ventilation les than equal to 15 liters/minute; and respiratory rate/tidal volume less than or equal to 105/min/L(RR/TV<105), SUD					·	1	1	1				
	Ventilator Associated		(peptic ulcer disease) prophylaxis, DVT (deep												
	Pneumonia (VAP)		venous thrombosis) prophylaxis.		1										11/15
											1			NQF: http://www.qualityfo rum.org/Measures_L ist.aspx?keyword=v	
		ICU and high-risk nursery (HRN)	Percentage of ICU and HRN patients who over a certain amount of days have ventilator-associated											entilator+associated +pneumonia&from=	
	Pneumonia (VAP)	patients TIVE PULMONARY DISEASE (COPD)- 1	pneumonia.		1 8 2	1	0	0 17	7	0	14	3	0 8	header	1/1
			This measure is used to assess the percentage of		5 <u>2</u>	•	0	0		0	••	0	0		
	COPD	years of age and older with a new diagnosis or newly active COPD who	health plan members 40 years of age and older with a new diagnosis or newly active chronic obstructive pulmonary disease (COPD) who received appropriate spirometry testing to confirm the diagnosis.		1	1		1	1		1	1		National Committee for Quality Assurance	
			This measure is used to assess the percentage of patients with COPD with oxygen saturation assessed	4				1	1		1			Physician Consortium for Performance	
	COPD	saturation assessed at least annually. Chronic obstructive pulmonary disease	at least annually. This measure is used to assess the percentage of		1									Improvement Physician	1-M
	COPD	COPD who were assessed for COPD	patients who were assessed for chronic obstructive pulmonary disease (COPD) symptoms at least annually.					1	1		1			Consortium for Performance Improvement	
	COPD	COPD: Pulmonary rehabilitation: exercise training recommended Chronic obstructive pulmonary disease	This measure is used to assess the percentage of patients for whom exercise training was recommended.					1	1		1	1	1	Physician Consortium for Performance Improvement	
	COPD and smoking		This measure is used to assess the percentage of smokers who received a smoking cessation					1	1				1	Physician Consortium for Performance	
	cessation	intervention at least annually Chronic obstructive pulmonary disease (COPD): percentage of patients aged	intervention at least annually.						1					Improvement Physician	
	COPD and smoking cessation	COPD who were queried about smoking at least annually Chronic obstructive pulmonary disease	This measure is used to assess the percentage of patients who were queried about smoking at least annually.						ı					Consortium for Performance Improvement	
	COPD and immunization		This measure is used to assess the percentage of patients who received a pneumococcus immunization.					1	1		1		1	Physician Consortium for Performance Improvement	

Me	asure details			Endorse Status	Implementation			Mapping to Priority	5 National						
o: Mea	asure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measure HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safety	Appropriaten ss/overuse	e Affordability of and access to care		Promotion of best practices for health living		NQF Endorsed Date
		Chronic obstructive pulmonary disease (COPD): percentage of patients aged	This measure is used to assess the percentage of					1			1			Physician 1 Consortium for	
COP	PD		patients who were assessed for pneumococcus immunization status.											Performance Improvement	
			This measure is used to assess the percentage of					1			1			1 Physician Consortium for	
COP	PD	COPD who received influenza immunization during current flu season Chronic obstructive pulmonary disease (COPD): percentage of patients aged	patients who received influenza immunization during current flu season.											Performance Improvement	
C01		18 years and older with a diagnosis of COPD who were recommended to receive an influenza immunization	This measure is used to assess the percentage of patients who were recommended to receive an inducement in memory and the percentage of					1			1			1 Physician Consortium for Performance	
COP	Ū		influenza immunization annually. This measure is used to assess the number of admissions for chronic obstructive pulmonary											Improvement	
			disease (COPD) per 100,000 population. As a Prevention Quality Indicator (PQI), COPD is not a measure of hospital quality, but rather one measure of outpatient and other health care. This indicator												
			has unclear construct validity, because it has not been validated except as part of a set of indicators. Providers may reduce admission rates without												
			actually improving quality by shifting care to an outpatient setting. Some COPD care takes place in emergency rooms, so combining inpatient and emergency room data may give a more accurate											Agency for Healthcare Research	
COP	PD	(COPD): hospital admission rate.	picture. This measure is used to assess the percentage of		1			1			1	1		and Quality Physician Consortium for	
COP	PD	COPD: spirometry evaluation	patients who had a spirometry evaluation results documented at least annually. This measure is used to assess the percentage of patients aged 18 years and older with a diagnosis of		1 1									Performance Improvement Physician	1-May-
COP	PD		COPD who have an FEV1/FVC less than 70% and have symptoms who were prescribed an inhaled bronchodilator.		1 1			1			1			Consortium for Performance Improvement	1-May-
СОР			Percentage of patients aged 18 years and older with a diagnosis of COPD and who have an FEV1/FVC less than 70% and have symptoms who were					1			1			Physician Consortium for Performance	1 Ман
COP	0	Chronic obstructive pulmonary disease (COPD): percentage of patients with	prescribed an inhaled bronchodilator. This measure is used to assess the percentage of patients with chronic obstructive pulmonary disease		1			1						Improvement	1-May
	PD and smoking sation		(COPD) whose physician inquired about smoking cessation (if patient a smoker) at every visit.												
		(COPD) exacerbation: percentage of COPD exacerbations for members 40 years of age and older who had an	This measure is used to assess the percentage of chronic obstructive pulmonary disease (COPD) exacerbations for members 40 years of age and					1			1				
		encounter between January 1 to November 30 of the measurement year and who were dispensed a	older who had an acute inpatient discharge or emergency department (ED) encounter between January 1 to November 30 of the measurement year											National Committee	
COP	חק		and who were dispensed a bronchodilator within 30 days of the event.		1									for Quality Assurance	5-Aug-

	Measure details			Endorse Status	Implem	entation			Mapping Priority	to National						
Area				NQF	PQRS		Hospital	2013 Hospital	Care	Patient Safety	Appropriaten ss/overuse	e Affordability of and access to care		Promotion of best practices for health living		NQF Endorsed
assigned to:	Measure Category	and who were dispensed a systemic corticosteroid within 14 days of the event.	Measure Description This measure is used to assess the percentage of chronic obstructive pulmonary disease (COPD) exacerbations for members 40 years of age and older who had an acute inpatient discharge or emergency department (ED) encounter between January 1 to November 30 of the measurement year and who were dispensed a systemic corticosteroid within 14 days of the event.		Measure	HEDIS	Compare	VBP		1		1		inving	Developer National Committee for Quality Assurance American Medical Association on	Date 5-Aug-09
	COPD	Chronic obstructive pulmonary disease (COPD): percentage of patients aged 18 years and older with a diagnosis of COPD and an oxygen saturation less than or equal to 88% or a PaO2 less than or equal to 55 mm Hg who prescribed long term oxygen therapy.	This measure is used to assess the percentage of patients who received long term oxygen therapy.							1		1			behalf of the Physician Consortium for Performance Improvement® - Medical Specialty Society	
	PNEUMOTHORAX- 4		patients who received long term oxygen therapy.		3	0	0	0	0	0	0	2	2	0 0		
	Pneumothorax	Iatrogenic pneumothorax (area-level): rate per 100,000 population	This measure is used to assess the number of cases of iatrogenic pneumothorax per 100,000 population.												NQMC: http://www.qualitym easures.ahrq.gov/su mmary/summary.as px?doc_id=12719&s tring=Pneumothorax	
	Pneumothorax	Iatrogenic pneumothorax in non- neonates: rate per 1,000 eligible admissions.	This measure is used to assess the number of patients with an iatrogenic pneumothorax per 1,000 eligible admissions.		1							1	1		NQMC: http://www.qualitym easures.ahrq.gov/su mmary/summary.as px?doc_id=8835&str ing=pneumothorax	5/15/2008
	Pneumothorax	Iatrogenic pneumothorax (provider- level): rate per 1,000 discharges	This measure is used to assess the number of cases of iatrogenic pneumothorax per 1,000 discharges.		1							1			NQMC: http://www.qualitym easures.ahrq.gov/su mmary/summary.as px?doc_id=12718&s tring=Pneumothorax	
	Pneumothorax	adjusted)	Percent of medical and surgical discharges, 18 years and older, with ICD-9-CM code of iatrogenic pneumothorax in any secondary diagnosis field.		1								1			
	IMMUNIZATION / II	NFLUENZA- 8 measures			8	0	0	1	1	8	1	8	2	0 8	Physician	
	Influenza	Influenza Vaccination	Percentage of patients who received an influenza vaccination. Percent of patients who received influenza		1					1		1	1	1	Consortium for Performance Improvement	1-May-06
	Influenza	Influenza Immunization Received for Current Flu Season	immunization for the current flu season from this home health agency. Percentage of patients age 50-64 who report having received an influenza vaccination during the pact		1					1		1	1		Centers for Medicare & Medicaid Services National Committee for Quality	31-Mar-09
	Influenza	Flu shots for Adults Ages 50-64	received an influenza vaccination during the past influenza vaccination season Percentage of patients age 65 and over who received an influenza vaccination from September		1					1		1	I		for Quality Assurance National Committee for Quality	10-Aug-09
	Influenza	Flu Shot for Older Adults	through December of the year		1					1		1		1	Assurance American Medical Association - Physician Consortium for	10-Aug-09
	Influenza	Influenza vaccination	Percentage of patients who received an influenza vaccination		1			1	1	1					Performance Improvement	10-Aug-09

1	Measure details			Endorse Status	Implem	nentation			Mapping Priority	to National						
ea signed to:	Measure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measure	e HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safet	Appropriater y ss/overuse	e Affordability of and acces to care		Promotion of best practices for health living	Developer	NQF Endorsed Date
	Influenza	Influenza Vaccination of Nursing Home/ Skilled Nursing Facility Residents	This measure is used to assess the percentage of eligible and willing long-stay (chronic care) nursing home residents who were vaccinated for influenza during the flu season (October 1 through March 31) Percentage of nursing home residents who are		1					1		1			<sup>1</sup> Centers for Medicare & Medicaid Services	31-Jul-
1	Influenza	Influenza vaccination for all nursing	screened for eligibility for influenza vaccine status and are either not eligible, or are eligible and receive the vaccine.		1					1		1			1	
l	Influenza <b>DYSPNEA- 1</b>		Percentage of healthcare personnel (HCP) who receive the influenza vaccination.		1	0	0	0			1	1	0	0	1 Centers for Medicare & Medicaid Services	31-Jul-
	<b>measure</b> Dyspnea	Home health care: percentage of	This measure is used to assess the percentage of home health care patients whose dyspnea improved compared to a prior assessment. The measure identifies the patient's level of shortness of breath.		1					1		1			Center for Health Services Research, University of Colorado, under contract to Centers for Medicare and Medicaid Services	31-Mar-
	DYSPNEA- Cancer Care- 6 measures				0	0	0	0	0	6	0	6	0	1	0	
		investigation of at least one of the following: hypoxia, anemia, bronchospasm or chronic obstructive pulmonary disease, pleural effusion, tumor obstruction of bronchi or the trachea, pneumonia, or pulmonary	This measure is used to assess the percentage of patients who reported new or worsening dyspnea for whom there was documentation of cause or of investigation of at least one of the following: hypoxia, anemia, bronchospasm or chronic obstructive pulmonary disease, pleural effusion, tumor obstruction of bronchi or the trachea,							1		1				
	Dyspnea Dyspnea	Cancer - dyspnea: percentage of patients in the hospital treated for dyspnea who had an assessment within 24 hours that the treatment was effective in relieving dyspnea or that a change in treatment for dyspnea was made. Cancer - dyspnea: percentage of	pneumonia, or pulmonary embolism. This measure is used to assess the percentage of patients in the hospital treated for dyspnea who had an assessment within 24 hours that the treatment was effective in relieving dyspnea or that a change in treatment for dyspnea was made.	1						1		1			RAND Corporation	
I	Dyspnea	for whom there was a repeat assessment of dyspnea within one	This measure is used to assess the percentage of patients with a malignant pleural effusion who underwent thoracentesis for whom there was a repeat assessment of dyspnea within one week.							1		1			RAND Corporation	
	Dyspnea	admission who were offered symptomatic management or treatment directed at an underlying	This measure is used to assess the percentage of inpatients with primary lung cancer or advanced cancer with dyspnea on admission who were offered symptomatic management or treatment directed at an underlying cause within 24 hours.							1		1			RAND Corporation	
	2,0000	Cancer - dyspnea: percentage of outpatients with primary lung cancer or advanced cancer who reported new or worsening dyspnea who were offered symptomatic management or treatment directed at an underlying	This measure is used to assess the percentage of outpatients with primary lung cancer or advanced cancer who reported new or worsening dyspnea who were offered symptomatic management or treatment directed at an underlying cause within one month.							1		1		1	RAND Corporation	

Measure	e details			Endorse Status	Implem	entation			Priority	to National						
				NQF	PQRS		Hospital	2013 Hospital	Care coordination	Patient Safety	Appropriaten ss/overuse	e Affordability of and acces to care	Patient and s family engagement	Promotion of best practices for health living		NQF Endors
to: Measure	Category	Measure Name Cancer - dyspnea: percentage of	Measure Description	Endorsed	Measure	HEDIS	Compare	VBP						iiviig	Developer	Date
		patients with dyspnea and a malignant														
		pleural effusion who were offered	This measure is used to assess the percentage of													
			patients with dyspnea and a malignant pleural							1		1				
		initial diagnosis of the effusion, or other treatment (e.g., diuresis) that	effusion who were offered thoracentesis within one month of the initial diagnosis of the effusion, or													
			other treatment (e.g., diuresis) that resulted in a													
Dyspnea		or symptomatic dyspnea.	reduction in the effusion or symptomatic dyspnea.												RAND Corporation	
Postopera																
1 measur	ry Failure- re				1	0	0	0	0	0 (	n	1	0	0 0		
					-	•	5	0	•		•	-				
Postoperat	ativo	Postoperative Repiratory Failure (PSI	Number of adult patients with postoperative									1			Agency for Healthcare Research	
Repiratory		11)	respiratory failure per eligible elective admissions.		1										and Quality	
	ry/Critical														ζ,	
Care Onc										0	2	0	0	0		
CANCER (	CARE		Percentage of all surgical patients aged 18 years							8	0	8	0	2 1		
		Recording of Clinical Stage for Lung	and older undergoing treatment procedures for lung							1		1				
		Cancer and Esophageal Cancer	or esophageal cancer that had clinical TNM staging							I		1			Society of Thoracic	
Cancer Ca	are	Resection	provided prior to surgery.		1	1									Surgeons	
		Risk-Adjusted Morbidity after	Percentage of patients undergoing elective lobectomy for lung cancer that have a prolonged							1		1			Society of Thoracic	
Cancer Ca	are	Lobectomy for Lung Cancer	length of stay (>14 days)		1										Surgeons	
			Percentage of thoracic surgical patients, >/= 18												-	
		Dulas a sur Function Tests hafens Maisu	years of age who underwent at least one pulmonary							1		1				
Cancer Ca	are	Pulmonary Function Tests before Major Anatomic Lung Resection	function test no more than 12 months prior to a major lung resection.		1										Society of Thoracic Surgeons	
		Recording of Performance Status	Percentage of patients undergoing resection of a		-										Surgeons	
		(Zubrod, Karnofsky, WHO or ECOG	lung or esophageal cancer who had their							1		1		1		
<b>C C</b>		Performance Status) Prior to Lung or	performance status recorded within two weeks of												Society of Thoracic	
Cancer Ca	are	Esophageal Cancer Resection	the surgery date.		1										Surgeons	
															American Society for	r
															Therapeutic	
															Radiology and Oncology - Medical	
															Specialty Society,	
		Oncology: percentage of patients,													American Society of	
			This measure is used to assess the percentage of							I		1			Clinical Oncology -	
		pancreatic or lung cancer who receive 3D conformal radiation therapy with	patients, regardless of age, with a diagnosis of pancreatic or lung cancer who receive 3D conformal												Medical Specialty Society, Physician	
		1,	radiation therapy with documentation in medical												Consortium for	
			record that radiation dose limits to normal tissues												Performance	
			were established prior to the initiation of a course of	:											Improvement® -	
Cancer Ca	are	of a course of 3D conformal radiation for a minimum of two tissues.	3D conformal radiation for a minimum of two tissues.		1										Clinical Specialty Collaboration	3
		Cancer - information and care			-										condoordation	
		planning: percentage of patients with														
			This measure is used to assess the percentage of													
			patients with advanced cancer who are admitted to the intensive care unit (ICU) and survive 48 hours							1		1		1		
		attempt to identify them was	for whom the patient's preferences for care or an													
<i>.</i>		documented in the medical record	attempt to identify them was documented in the													
Cancer Ca	are	within 48 hours of ICU admission.	medical record within 48 hours of ICU admission.												RAND Corporation	
		Cancer - information and care planning: percentage of patients with														
			This measure is used to assess the percentage of													
		ventilated in the ICU for whom the	patients with advanced cancer who are mechanically	1												
		patient's preference for mechanical	ventilated in the intensive care unit (ICU) for whom							1		1		1		
		unavailable was documented in the	the patient's preference for mechanical ventilation or why this information was unavailable was													
		medical record within 48 hours of	documented in the medical record within 48 hours													

	Measure details			Endorse Status	Impler	nentation			Mapping Priority	to National						
ned to:	Measure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measur	e HEDIS	Hospital Compare	2013 Hospital VBP	Care coordinatior	Patient Safe	Appropriate ss/overuse	ne Affordability of and acces to care	Patient and s family engagement	Promotion of best practices for health living	Developer	NQF Endorsed Date
	Cancer Care	Proportion admitted to the ICU in the last 30 days of life	Percentage of patients who died from cancer admitted to the ICU in the last 30 days of life		1					1		1			Institute for Clinical and Evaluative Sciences	
	EMERGENCY - PULMONARY- 1 measure				1	0	0	0	0	0	0	0	1	0 (	)	
	Emergency	Confirmation of Endotracheal Tube Placement	Any time an endotracheal tube is placed into an airway in the Emergency Department or an endotracheal tube is placed by an outside provider and that patient arrives already intubated (EMS or hospital transfer) or when an airway is placed after patient arrives to the ED there should be some method attempted to confirm ETT placement.		1								1		Cleveland Clinic	
l Care res																
	CARDIOVASCULAR -	CRITICAL CARE														
	ISCHEMIC HEART D measure	ISEASE - CRITICAL CARE- 1			1	1	0	0	0	1	0	1	0	0	D	
I	Use of Aspirin or Another	Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) with documented use of aspirin or other antithrombotic			1	1				1		1			NCQA	
	Antithrombotic ACUTE MYOCARDIAI	LINFARCTION - CRITICAL CARE- 3			3	0	0	0	3	3	0	2	0	1 (	0	
	<b>measure</b> Acute Myocardial	Aspirin Prescribed at Discharge	Acute myocardial infarction (AMI) patients who are		0	U	0	0	5	5	0	2	0	1	5	
	Infarction	Aspinin resended de Discharge	prescribed aspirin at hospital discharge		1				1	1				1		
	Acute Myocardial Infarction	Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival	Acute myocardial infarction (AMI) patients with ST- segment elevation or LBBB on the ECG closest to arrival time receiving fibrinolytic therapy during the hospital stay and having a time from hospital arriva									1				
	Acute Myocardial	Primary PCI Received Within 90 Minutes of	to fibrinolysis of 30 minutes or less Acute myocardial infarction (AMI) patients with ST-segmen		1				1	1						
	Infarction	Hospital Arrival	elevation or LBBB on the ECG closest to arrival time receiving primary PCI during the hospital stay with a time from hospital arrival to PCI of 90 minutes or less		1				1	1		1				
	HEART FAILURE - CRITICAL CARE- 3				3	0	0	0	3	3	0	2	0	1 (	0	
I	Heart Failure	Discharge Instructions	Heart failure patients discharged home with written instructions or educational material given to patient or caregiver at discharge or during the hospital stay addressing all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if symptoms worsen		1				1	1				1		
I	Heart Failure	Evaluation of LVS Function	Heart failure patients with documentation in the hospital record that left ventricular systolic (LVS) function was evaluated before arrival, during hospitalization, or is planned for after discharge		1				1	1		1				
I	Heart Failure	ACEI or ARB for LVSD	Heart failure patients with left ventricular systolic dysfunction (LVSD) who are prescribed an ACEI or ARB at hospital discharge. For purposes of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction.	I	1				1	1		1				
-	SURGERY - CRITICAL				2	0	0	0	2	2	0	2	0	0	)	
	Cardiovascular Surgery	Surgery Patients on Beta-Blocker Therapy Prior to Arrival Who Received a Beta-Blocker During the Perioperative Period	Surgery patients on beta-blocker therapy prior to arrival wh received a beta-blocker during the perioperative period. The perioperative period for the SCIP Cardiac measures is defined as 24 hours prior to surgical incision through discharge from post-anesthesia care/recovery area.	e	1		-		1	1		1				
(	Cardiovascular Surgery	Cardiac Surgery Patients With Controlled 6 A.M. Postoperative Blood Glucose	Cardiac surgery patients with controlled 6 A.M. blood glucose (less than or equal to 200 mg/dL) or postoperative day one (POD 1) and postoperative day two (POD 2) with Anesthesia End Date being postoperative day zero (POD 0).		1				1	1		1				

I	Measure details			Endorse Status	Implem	entation			Mapping Priority	to Nationa	I					
ł	Measure Category HYPERTENSION - CRITICAL CARE	Measure Name	Measure Description	NQF Endorsed	PQRS Measure	HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safe	Appropria sty ss/overus	itene of and acc	ty Patient and ess family engagemer	Promotion of best practices for health living		NQF Endorsed Date
٦	None															
9 1 0 1 0	NEURO- Critical Care STROKE, INCLUDING CONTROL OF HYPERTENSION - CRITICAL CARE- 5 measures				5	0	0	0	0	5	3	5	0	1 (	)	
ç	Stroke	to 100 mg/dL, or LDL not measured, or who were on a lipid-lowering medication prior to hospital arrival,	This measure* is used to assess the percentage of ischemic stroke patients with low-density lipoproteir (LDL) greater than or equal to 100 mg/dL, or LDL not measured, or who were on a lipid-lowering medication prior to hospital arrival, who are prescribed a statin medication at hospital discharge		1					1		1			Center for Medicare & Medicaid Services / The Joint Commission	31-Jul-
		Stroke: percent of acute ischemic stroke patients for whom IV thrombolytic therapy was initiated at the hospital within 3 hours (less than or equal to 180 minutes) of time last	This measure* is used to assess the percentage of acute ischemic stroke patients who arrive at the hospital within 120 minutes (2 hours) of time last known well and for whom intravenous recombinant tissue plasminogen activator (IV r-TPA or t-PA) was initiated at this hospital within 180 minutes (3		1					1	1	1			Center for Medicare & Medicaid Services / The Joint	
	Stroke	received venous thromboembolism (VTE) prophylaxis or who have	hours) of time last known well. This measure* is used to assess the percentage of patients with an ischemic stroke or a hemorrhagic stroke who received venous thromboembolism (VTE) prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission.		1					1	1	1			Commission The Joint Commission	31-Jul <sup>.</sup> 31-Jul <sup>.</sup>
			This measure* is used to assess the percentage of patients with ischemic or hemorrhagic stroke, or their caregivers, who were given educational materials during their hospital stay addressing all of the following: (1) Activation of emergency medical system (2) Follow-up after discharge (3) Medications prescribed at discharge (4) Risk factors for stroke (5) Warning signs and symptoms of							1		1		1	The Joint	
S	Stroke	categories. Stroke: percent of ischemic stroke	stroke This measure* is used to assess the percentage of		1										Commission	31-Jul
C	Stroke CEREBROVASCULAR DISEASE	patients administered antithrombotic therapy by the end of hospital day 2.	ischemic stroke patients administered antithrombotic therapy by the end of hospital day 2.		1					1	1	1			The Joint Commission	31-Jul-
١	None															
E	GI - CRITICAL CARE END STAGE LIVER DISEASE -															
r	None NEPHRITIS None															
E	Endocrinology- Critical Care															
١	DIABETES- CRITICA None Venous- Critical	L CARE														
	Care /TE- 24 measures				23	4	0	9	2 2	24	2	24	0	4 (	)	
۷ ۲	/enous Thromboembolism Disease (VTE)	Anticoagulation for acute pulmonary embolus patients	Anticoagulation ordered for acute pulmonary embolus.		1					1	1	1	-		American College of Emergency Physicians	

r	Measure details			Endorse Status	Implementation			Mapping f	to National					
ad to: N	Measure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measure HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safet	Appropriater y ss/overuse	Affordability of and access to care	Promotion of best practices for health living	Developer	NQF Endorsed Date
eu to. <mark>r</mark>	Heasure Category	Measure Name	Percent of in-hospital deaths for surgical discharges, age 12 years and older, with a principal procedure within 2 days of admission or elective, with enumerated complications of		Measure NEDIS	compare	VDP					Ū	Developer	Date
Т	/enous Fhromboembolism Disease (VTE)	Death among surgical inpatients with serious treatable complications: deaths per 1,000 discharges.	care listed in failure to rescue (FTR) definition (e.g., pneumonia, DVT/PE, sepsis, shock/cardiac arrest, or GI hemorrhage/acute ulcer).		1				1	1	1		Agency for Healthcare Research and Quality	5/15/2008
			This measure is used to assess the number of ventilator days where patients received deep vein thrombosis (DVT) prophylaxis.											
			The results of this measure should also be analyzed in conjunction with ICU-1: Ventilator-associated Pneumonia (VAP) Prevention - Patient Positioning, as elevation of the band of the band mey earthibut to uncertain and does						1		1			
v	/enous	Intensive care: number of ventilator days	head of the bed may contribute to venous stasis and deep vein thrombosis. See the related National Quality Measures Clearinghouse (NQMC) measure summary Intensive care - ventilator-associated pneumonia (VAP) prevention: number											
T C V	Γhromboembolism Disease (VTE) /enous	where the patients received deep vein thrombolysis (DVT) prophylaxis	of ventilator days where the patient's head of bed (HOB) is elevated equal to or greater than 30 degrees. This measure is used to assess the percentage of ischemic		1		1						Joint Commission Centers for Medicare &	
	Fhromboembolism Disease (VTE) /enous Fhromboembolism	Antithrombotic Therapy by End of Hospital Day Two	stroke patients administered antithrombotic therapy by the end of hospital day 2. This measure is used to assess the percentage of patients hospitalized with ischemic stroke who are prescribed		1		1		1		1		Medicaid Services/The Joint Commission Centers for Medicare & Medicaid Services/The	5/16/2008
	Disease (VTE)	Discharged on Antithrombotic Therapy	antithrombotic therapy at hospital discharge. This measure is used to assess the percentage of acute ischemic stroke patients who arrive at the hospital within 120 minutes (2 hours) of time last known well and for whom		1		1		I		I		Joint Commission	5/16/2008
Т	/enous Fhromboembolism Disease (VTE)	Thrombolytic Therapy Administered	intravenous recombinant tissue plasminogen activator (IV r TPA or t-PA) was initiated at this hospital within 180 minutes (3 hours) of time last known well.	-	1		1		1		1		Centers for Medicare & Medicaid Services/The Joint Commission	5/16/2008
													American Academy of Neurology American College of Radiology	
	/enous Fhromboembolism		Percentage of patients aged 18 years and older with the diagnosis of ischemic stroke or transient ischemic attack						1		1		National Committee for Quality Assurance Physician Consortium for Performance	
	Disease (VTE)	Discharged on Antiplatelet Therapy Heart failure: percentage of patients aged	(TIÅ) who were prescribed antiplatelet therapy at discharge		1 1								Improvement American College of Cardiology, American	5/1/2007
Т	/enous Fhromboembolism Disease (VTE)	greater than or equal to 18 years with diagnosed heart failure (HF) who also have paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy.	This measure is used to assess the percentage of patients aged greater than or equal to 18 years with diagnosed hear failure (HF) who also have paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy.	t	1				1		1		Heart Association, Physician Consortium for Performance Improvement	12/1/2006
									1		1		American College of Cardiology, American Heart Association, Devicing Concertium	
Т	/enous Fhromboembolism Disease (VTE)	CAD: Antiplatelet Therapy	Percentage of patients with CAD who were prescribed antiplatelet therapy. Number of procedures for which the patient was discharged	ł	1 1								Physician Consortium for Performance Improvement	12/1/2006
	/enous Fhromboembolism		from the facility on Aspirin, enteric coated aspirin, or ADP Inhibitors/Number of Isolated CABG procedures excluding those that resulted in in-hospital mortalities based on the variables Mortality Discharge Status, Mortality Date, and						1		1		Society of Thoracic	
v	Disease (VTE) /enous Fhromboembolism	Anti-platelet medication on discharge Postoperative pulmonary embolism or deep vein thrombosis: rate per 1,000 surgical	Discharge Date. This measure is used to assess the number of cases of deep vein thrombosis (DVT) or pulmonary embolism (PE) per 1,000 surgical discharges with an operating room		1				1		1		Surgeons Agency for Healthcare	5/1/2007
	Disease (VTE)	discharges with an operating room procedure			1								Research and Quality American Academy of Neurology, American College of Radiology,	7/31/2008
	/enous Fhromboembolism	Deep Vein Thrombosis (DVT) Prophylaxis for	This measure is used to assess the percentage of patients aged 18 years and older with the diagnosis of ischemic stroke OR intracranial hemorrhage who received deep vein						1		1		National Committee for Quality Assurance, Physician Consortium for Performance	
	Disease (VTE)		thrombosis (DVT) prophylaxis by end of hospital day 2.		1 1								Improvement	5/1/200

	Measure details			Endorse Status	Implementation			Mapping Priority	to National				
Area assigned to:	Measure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measure HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safety Appropriater ss/overuse	Pe Affordability Patient and of and access family to care engagement	Promotion of best practices for health living	Developer	NQF Endorsed Date
	Venous	Surgery Patients Who Received Appropriate Venous Thromboembolism (VTE)	Percentage of surgery patients who received appropriate										
	Thromboembolism Disease (VTE) Venous		Venous Thromboembolism (VTE) Prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time This measure assesses the number of patients diagnosed with confirmed VTE during hospitalization (not present on arrival) who did not receive VTE prophylaxis between		1		1	1	1	1		Centers for Medicare & Medicaid Services	8/10/2009
	Thromboembolism Disease (VTE)	Incidence of Potentially Preventable VTE	hospital admission and the day before the VTE diagnostic testing order date. Surgery patients with recommended Venous		1		1					The Joint Commission	5/15/2008
	Venous		Thromboembolism (VTE) prophylaxis ordered anytime from	1						1			
	Thromboembolism Disease (VTE)	Venous Thromboembolism (VTE) Prophylaxis	hospital arrival to 24 hours after Anesthesia End Time.		1		1	1	1			The Joint Commission American Academy of Neurology, American	8/10/2009
	Venous Thromboembolism	Anticoagulant Therapy Prescribed for Atrial	Percentage of patients aged 18 years and older with the diagnosis of ischemic stroke or transient ischemic attack (TIA) with documented permanent, persistent, or paroxysmal atrial fibrillation who were prescribed an						1	1		College of Radiology, National Committee for Quality Assurance, Physician Consortium for Performance	
	Disease (VTE)	Fibrillation at Discharge	anticoagulant at discharge.		1							Improvement	5/1/2007
	Venous		Percentage of patients aged 18 years and older undergoing procedures for which VTE prophylaxis is indicated in all patients, who had an order for Low Molecular Weight Heparin (LMWH), Low-Dose Unfractionated Heparin (LDUH), adjusted-dose warfarin, fondaparinux or	]					1	1		American College of Surgeons, National Committee for Quality Assurance, Physician Consortium for	
	Thromboembolism Disease (VTE)	Venous Thromboembolism (VTE) Prophylaxis	mechanical prophylaxis to be given within 24 hours prior to incision time or within 24 hours after surgery end time. This measure assesses the number of patients diagnosed with confirmed VTE who received an overlap of parenteral		1 1							Performance Improvement	5/1/2007
	Venous		(intravenous [IV] or subcutaneous [subcu]) anticoagulation and warfarin therapy. For patients who received less than five days of overlap therapy, they must be discharged on both medications. Overlap therapy must be administered fo at least five days with an international normalized ratio (INR) = 2 prior to discontinuation of the parenteral	r					1	1			
	Thromboembolism		anticoagulation therapy or the patient must be discharged										
	Disease (VTE)	Therapy	on both medications. This measure assesses the number of patients diagnosed with confirmed VTE that are discharged to home, to home with home health or home hospice on warfarin with written		1		1					The Joint Commission	5/15/2008
	Venous Thromboembolism		discharge instructions that address all four criteria: compliance issues, dietary advice, follow-up monitoring, an information about the potential for adverse drug	d					1	1	1		
	Disease (VTE) Venous	VTE Discharge Instructions	reactions/interactions. Measure adherance to current ACOG, ACCP		1		1					The Joint Commission	5/15/2008
	Thromboembolism Disease (VTE) Venous	Appropriate DVT prophylaxis in women undergoing cesarean delivery	recommendations for use of DVT prophylaxis in women undergoing cesarean delivery		1				1	1		Hospital Corporation of America	10/24/2008
	Thromboembolism Disease (VTE)	Discharged on Antithrombotic Therapy	Patients with an ischemic stroke prescribed antithrombotic therapy at discharge.		1				1	1			
	Venous Thromboembolism Disease (VTE)	Monthly INR Monitoring for Benefiiaries on Warfarin	Average percentage of monthly intervals in which Part D beneficiaries with claims for warfarin do not receive an INR test during the measurement period Percentage of episodes with an INR test performed		1				1	1	1	Centers for Medicare & Medicaid Services	1
	Venous Thromboembolism Disease (VTE)	INR for Beneficiaries Taking Warfarin and Interacting Anti-Infective Medications	3 to 7 days after a newly-started interacting anti- infective medication for Part D beneficiaries receiving warfarin.		1				1	1	1	Centers for Medicare & Medicaid Services	1

	Measure details			Endorse Status	Implementation			Mapping t Priority	o National		
Area assigned to	: Measure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measure HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safety	Appropriatene ss/overuse	Affordability of and acces to care

	Measure details			Status	impien	nentation			Priority							
ed to: N	Measure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measure	e HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safety	Appropriaten <sup>y</sup> ss/overuse	e Affordability of and acces to care	Patient and s family engagement	Promotion of best practices for health living	Developer	NQF Endors Date
T	/enous Thromboembolism	(TTR): mean TTR achieved among patients who received prescriptions for	This measure is used to assess the mean therapeutic international normalized ratio (INR) range (TTR) achieved among patients who received prescriptions for warfarin and had sufficient INR values to calculate TTR.							1		1		1	Rose, Adam, MD, MSc, FACP; Berlowitz, Dan, MD, MPH; Reisman, Joel, AB; Ash, Arlene, PhD; Ozonoff, Al, PhD; Hylek, Elaine, MD, MPH - Independent Author(s) U.S. Department of Veterans Affairs, Health Services Research and Development Service, Center for Health Quality, Outcomes and Economic Research (CHQOER)	
	Care															
۱ د	Mechanical /entilation- CRITICAL CARE- 1 measure				0	0	0	0	0	1	0	1	0	0 0		
Ν		years and older who receive mechanical ventilation and who had an	This measure is used to assess the percentage of intensive care unit (ICU) patients aged 18 years and older who receive mechanical ventilation and who had an order on the first ventilator day for head of bed elevation (30-45 degrees).	d						1		1			American Society of Anesthesiologists, Physician Consortium for Performance Improvement	
	Jrinary- Critical															
	Care Jrinary Catheter- 2				2	0	0	2	0	1	1	1	0	0 0		
r	neasures	Urinary catheter removed on Postoperative	Surgical patients with urinary catheter removed on		-	-	·	-	•				U III			
C	Catherter removal	Day 1 (POD 1) or Postoperative Day 2 (POD 2) with day of surgery being day zero	Postoperative Day 1 or Postoperative Day 2 with day of surgery being day zero.		1			1		1		1				
	JTI in the ICU	tract infection for intensive care unit	Percentage of intensive care unit patients with urinary catheter-associated urinary tract infections	5	1			1			1				CDC	10-/
	Musk/Skel- Critical Care															
	None Reproductive-															
C N	Critical Care															
(	-ymph/Immune- Critical Care None															
	Infection- Critical															
(	CLABSI - CRITICAL CARE- 4 measures		Deveethers of TOL and his his his		3	1	0	0	0	3	3	3	0	0 0	)	
F	Prophylaxis- Critical	Central Line Catheter-Associated Blood Stream Infection Rate for ICU and High-	Percentage of ICU and high-risk nursery patients, who over a certain amount of days acquired a central line catheter-associated blood stream infection over a specified amount of line days		1					1	1	1			Centers for Disease Control and Prevention	1-

N	leasure details			Endorse Status	Imple	mentation			Priority	to Nation						
to: M	leasure Category	Managero Nama	Measure Description	NQF Endorsed	PQRS	re HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Sa	Appropriaten ss/overuse	Affordability of and acce to care	y Patient and ss family engagement	Promotion of best practice for health living		NQF Endorse Date
	leasure category	Measure Name	Percentage of patients, regardless of age, who	Endorsed	ricasu	e nebis	Compare	VDP						Ū	Developei	Date
С	LABSI - Critical Care	Anesthesiology and Critical Care: Prevention of Catheter-Related Bloodstream Infections (CRBSI) - Central Venous Catheter (CVC) Insertion Protocol	undergo CVC insertion for whom CVC was inserted with all elements of maximal sterile barrier technique [cap AND mask AND sterile gown AND sterile gloves AND a large sterile sheet AND hand hygiene AND 2% chlorhexidine for cutaneous antisepsis (or acceptable alternative antiseptics per current guideline)] followed. Percentage of intensive care patients with central lines for whom all elements of the central line bundle are documented and in place. The central		1	1				1	1	1			American Society of Anesthesiologists, Physician Consortium for Performance Improvement	31-
С	LABSI - Critical Care	Central Line Bundle Compliance	line bundle elements include: ,Å¢Hand hygiene, ,Ä¢Maximal barrier precautions upon insertion, ,Ä¢Chlorhexidin skin antisepsis, optimal catheter site selection, with subclavian vein as the preferred site for non-tunneled catheters in patients 18 years or older, daily review of line necessity with prompt removal of unnecessary lines This indicator expresses the number of central line		1					1	1	1			Institute for Healthcare Improvement	15-1
			associated bloodstream (CLAB) infections in a facility in a given month in a standardized ratio of number of CLAB infections per 1,000 central line patient days. This indicator is useful in facilities with	ı											Veterans Health	
A P C	CLABSI - Critical Care NTIBIOTIC PROPHYLAXIS- Critical Care- 4 measures	patient days	a high number of central line days.		4	4	0	0	3	4	0	3	0	0	Administration	
	ntibiotic Prophylaxis- iritical Care	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision - Overall Rate	acceptable to start these antibiotics within two hours prior to incision time. Percentage of surgical patients aged 18 years and		1	1			1	1		1			American College of Surgeons, National Committee for Quality Assurance, Physician Consortium for Performance Improvement	
	ntibiotic Prophylaxis- ritical Care	Timing of Antibiotic Prophylaxis: Administering Physician	older who have an order for a parenteral antibiotic to be given within one hour (if fluoroquinolone or vancomycin, two hours) prior to the surgical incision (or start of procedure when no incision is required) for whom administration of prophylactic antibiotic has been initiated within one hour (if fluoroquinolone or vancomycin, two hours) prior to the surgical incision (or start of procedure when no incision is required)		1	1				1					American College of Surgeons, National Committee for Quality Assurance, Physician Consortium for Performance Improvement	
		Prophylactic Antibiotic Selection for	Surgical patients who received prophylactic antibiotics consistent with current guidelines		1	1			1	1		1			American College of Surgeons, National Committee for Quality Assurance, Physician Consortium for Performance	
	ritical Care	Surgical Patients Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End	(specific to each type of surgical procedure). Surgical patients whose prophylactic antibiotics were discontinued within 24 hours after Anesthesia End Time. The Society of Thoracic Surgeons (STS) Practice Guideline for Antibiotic Prophylaxis in Cardiac Surgery (2006) indicates that there is no reason to extend antibiotics beyond 48 hours for cardiac surgery and very explicitly states that antibiotics should not be extended beyond 48 hours even with tubes and drains in place for cardiac surgery.		I	1			1	1		1			Improvement American College of Surgeons, National Committee for Quality Assurance, Physician Consortium for Performance	
	Critical Care	Time			1	1									Improvement	

	Measure details			Endorse Status	Implem	entation			Mapping t Priority	o National						
ed to: I	Measure Category	Measure Name	Measure Description	NQF Endorsed	PQRS Measure	HEDIS	Hospital Compare	2013 Hospital VBP	Care	Patient Safety	Appropriatene ss/overuse	Affordability of and access to care		Promotion of best practices for health living	Developer	NQF Endorsed Date
F	Postoperative sepsis		This measure is used to assess the number of patients with sepsis per 1,000 eligible admissions with a length of stay of 4 days or more.												Agency for Healthcare Research and Quality	
	PALLIATIVE AND END-OF-LIFE CARE															
3	3 measures				1	0	0	0	0	3	0 :	2 (	)	3 (	)	
F	Palliative	Comfortable Dying	Percentage of patients who were uncomfortable because of pain on admission to hospice whose pair was brought under control within 48 hours.	I	1					1		1		1	National Cancer Institute	
F	Palliative	Palliative Care: Dyspnea Screening and Management	Percentage of patients with advanced chronic or serious life threatening illnesses that are screened for dyspnea. For those that are diagnosed with moderate or severe dyspnea, a documented plan of care to manage dyspnea exists.							1		1		1	National Committee for Quality Assurance, Physician Corsortium for Performance Improvement	
F	Palliative	Intensive care unit (ICU) palliative care: presence of room designated for meetings between clinicians and ICU families.	This measure is used to assess the presence of room designated for meetings between clinicians and intensive care unit (ICU) families.							1				1	Veterans Health Administration	
	MISCELLANEOUS															
	Hypothermia- Critical Care- 2 measures				2	1	0	0	0	2 (	0 2	2 0	)	o c	)	
	Critical Care	Anesthesiology and Critical Care: Perioperative Temperature Management	Percentage of patients, regardless of age, undergoing surgical or therapeutic procedures under general or neuraxial anesthesia of 60 minutes duration or longer for whom either active warming was used intraoperatively for the purpose of maintaining normothermia, OR at least one body temperature equal to or greater than 36 degrees Centigrade (or 96.8 degrees Fahrenheit) was recorded within the 30 minutes immediately before or the 30 minutes immediately after anesthesia end time.		1	1				1		1			American Society of Anesthesiologists, Physician Consortium for Performance Improvement	
		Surgery Patients with Perioperative Temperature Management	Surgery patients for whom either active warming was used intraoperatively for the purpose of maintaining normothermia or who had at least one body temperature equal to or greater than $96.8^{\circ}$ F/ $36^{\circ}$ C recorded within the 30 minutes immediately prior to or the 15 minutes immediately after Anesthesia End Time.		1					1		1			CMS and JC	31-J
I	NOSOCOMIAL INFEC	CTIONS														
	None	NCE- 15 Measures														
					11		0	5		5 (	0 1	5 (		5 15		

	Measure details	Endorse Status	Implementation			Mapping to Priority	o National				
Area assigned to:	Measure Category Measure Name	NQF Endorsed	PQRS Measure HEDIS	Hospital Compare	2013 Hospital VBP	Care coordination	Patient Safety Appropriatene ss/overuse	of and access	Patient and family engagement	Promotion of best practices for health living	NQF Endorsed Date

	(1) Smoking and tobacco use cessation: percentage of members 18 years and older who were current smokers or tobacco users and who discussed or were provided cessation methods or strategies during the measurement year. (2) Smoking and tobacco use cessation: percentage of members 18 years of age and older who were current smokers or tobacco users and who discussed or were recommended cessation medications during the measurement year. (3) Smoking and tobacco use cessation: percentage of members 18 years of			1
	age and older who were current	Percentage of members 18 years of age and older		
		who were current smokers or tobacco users who		
Tobacco Screening and		received advice to quit during the measurement	1	
Cessation	year.	year.	1	
Tobacco Screening and Cessation	injury and disorders (SCI&D) patients using tobacco who have been offered a referral to a tobacco cessation specialty program within the past year.	This measure is used to assess the percent of eligible spinal cord injury and disorders (SCI&D) patients using tobacco who have been offered a referral to a tobacco cessation specialty program within the past year.		1
Tobacco Screening and Cessation	referral to smoking cessation specialty	This measure is used to assess the percent of patients using tobacco who have been offered a referral to smoking cessation specialty program to assist with cessation within the past year.		1
Tobacco Screening and Cessation	percentage of patients who were	This measure is used to assess the percentage of patients aged greater than or equal to 18 years who were queried about tobacco use one or more times during the two-year measurement period.	1	1
Tobacco Screening and Cessation		This measure is used to assess the percentage of patients with chronic stable coronary artery disease (CAD) who were queried one or more times about cigarette smoking.		1
Tobacco Screening and Cessation	Chronic stable coronary artery disease (CAD): percentage of patients identified as cigarette smokers who received a smoking cessation intervention	This measure is used to assess the percentage of patients with chronic stable coronary artery disease (CAD) who are identified as cigarette smokers who received a smoking cessation intervention.		1
Tobacco Screening and Cessation	that there is no tobacco use/exposure or (if a	This measure assesses the percentage of patients' charts showing either that there is no tobacco use/exposure or (if a user) that the current use was documented at the most recent clinician visit.	1	1

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10-Aug-09

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	Veterans Health Administration

- . Veterans Health Administration
- Physician 1 Consortium for Performance Performance Improvement® American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement 10-Aug-09

Institute for Clinical Systems Improvement

	Measure details			Endorse Status	Implem	entation			Mapping 1 Priority	to National					
ea signed to:	Measure Category		Measure Description	NQF Endorsed	PQRS Measure	HEDIS	Hospital Compare	2013 Hospital VBP	Care	Patient Safety	Appropriatene ss/overuse	Affordability of and access to care	Promotion of best practices for health living		NQF Endorse Date
		Measure pair: a. Tobacco Use Assessment, b. Tobacco Cessation Intervention	Percentage of patients who were queried about tobacco use one or more times during the two-year measurement period Percentage of patients identified as tobacco users who received cessation intervention during the two-year measurement period. This measure is used to assess the percent of acute		1	1				1	1		1	1 Physician Consortium for Performance Improvement	
	Tobacco Screening and		myocardial infarction (AMI) patients with a history of smoking cigarettes who are given smoking cessation advice or counseling during the hospital stay. For the purposes of this measure, a smoker is defined as someone who has smoked cigarettes anytime during the year prior to hospital	3						1	1		1	1 Centers for Medicare & Medicaid Services/The	
	Cessation	myocardial infarction	arrival. This measure is used to assess the percent of heart failure patients with a history of smoking cigarettes who are given smoking cessation advice or counseling during hospital		1			1	1	1	1		1	Joint Commission	
		for HF	stay. For purposes of this measure, a smoker is defined as someone who has smoked cigarettes anytime during the year prior to hospital arrival. This measure is used to assess the percent of pneumonia patients with a history of smoking cigarettes who are given		1			1	1					<sup>1</sup> Centers for Medicare & Medicaid Services/The Joint Commission	
	Tobacco Screening and Cessation	Smoking cessation counseling for pneumonia	smoking cessation advice or counseling during the hospital stay. For the purposes of this measure, a smoker is defined as someone who has smoked cigarettes anytime during the year prior to hospital arrival. This measure is used to assess the percent of pneumonia		1			1	1	1	1		1	1	
	Tobacco Screening and Cessation		patients with a history of smoking cigarettes who are given smoking cessation advice or counseling during the hospital stay. For the purposes of this measure, a smoker is defined as someone who has smoked cigarettes anytime during the year prior to hospital arrival.		1			1	1	1	1		1	1	
		Heart failure: percent of patients with a	This measure is used to assess the percent of heart failure patients with a history of smoking cigarettes who are given smoking cessation advice or counseling during hospital stay. For purposes of this measure, a smoker is defined as someone who has smoked cigarettes anytime during the							1	1		1	1	
		during hospital stay	year prior to hospital arrival. Percentage of patients' charts showing either that there is no tobacco use/exposure or (if a user) that the current use was documented at the most recent clinic visit		1			1	1						
	Tobacco Screening and Cessation	Measure pair - a. Tobacco use prevention for infants, children and adolescents, b. Tobacco use cessation for infants, children and adolescents	Percentage of patients with documented tobacco use or exposure at the latest visit who also have documentation that their cessation interest was assessed or that they received advice to quit		1					1	1		1	1 Institute for Clinical Systems Improvement	8/1
	Tobacco Screening and	a. Advising Smokers to Quit, b. Discussing Smoking Cessation Medications, c. Discussing Smoking	Percentage of patients who received advice to quit smoking Percentage of patients whose practitioner recommended or discussed smoking cessation							1	1		1	<sup>1</sup> National Committee for Quality	
	Cessation ACCIDENTS / TRAUM		medications		1									Assurance	8/1

SUICIDE None

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