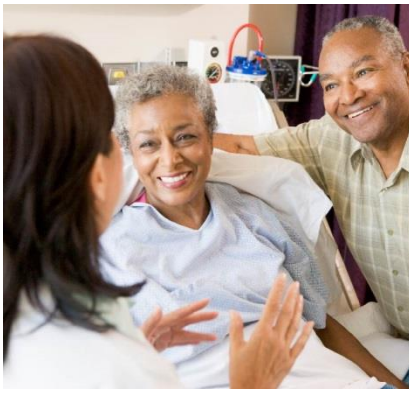

HEALTHCARE AND HUMAN SERVICES POLICY, RESEARCH, AND CONSULTING—WITH REAL-WORLD PERSPECTIVE.

2014 SQMS Proposed Measure Evaluation

Draft Report

Prepared for: **Center for Health Information and Analysis**

Submitted by: **The Lewin Group, Inc.**

September 18, 2014

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I. Introduction

The Massachusetts Statewide Quality Advisory Committee (SQAC) was established by Chapter 288 of the Acts of 2010. Chapter 288 expanded the Commonwealth's authority to examine and reject premium increases, mandated new methods for tracking system-wide costs, and created a template for expanding innovative health insurance products. Policymakers were careful to incorporate features to ensure that these cost containment efforts would not come at the expense of access to and quality of health care. In a system where stakeholders are being increasingly asked to make value-based health care decisions, improved, standardized information on health care costs and quality is needed to inform those decisions. It is within this context that the SQAC was convened.

In 2012, the SQAC met with the goal of recommending the first-ever Standard Quality Measure Set (SQMS) in the Commonwealth. To inform measure identification and selection, the Committee engaged in a priority setting process and solicited expert testimony to identify high-impact areas of care delivery and population health for which there are gaps in quality measurement.

The work reported here builds on assessments conducted in 2013 by The Lewin Group for the Massachusetts Center for Health Information and Analysis (CHIA) on behalf of the SQAC to support the development of its Standard Quality Measure Set (SQMS). In 2013 Lewin conducted an assessment of new, proposed measures for the SQMS, as well as of a subset of the quality measures proposed for the SQMS in 2012. The Lewin team also provided an assessment of the measure evaluation tool.

This year, Lewin reviewed a total of 41 proposed measures for the SQMS, including selected measures from Leapfrog. The proposed measures were categorized according to several identified priorities for 2014: 1) behavioral health; 2) pediatric care; 3) end of life care; and 4) patient-centered care. Lewin also evaluated additional measures including patient safety and CMS hospital measures. The results of Lewin's assessment are presented here.

II. Method

The Lewin team began by thoroughly researching each proposed measure for the SQMS. Lewin collected information from highly credible sources, including the Agency for Healthcare Research and Quality (AHRQ), CMS, and the National Quality Forum (NQF). Lewin also conducted a brief literature search on each measure, searching in particular for recent information on how and to the extent measures are used, their validity and their reliability.

As part of its initial assessment of the proposed measures, the Lewin team confirmed that each proposed measure (1) aligned with SQAC priorities and (2) had National Quality Forum (NQF) endorsement or was part of a nationally recognized measure set (e.g. CMS, AHRQ, MAP, etc.).

If the measures met these two criteria (not all proposed measures did), the team then applied the evaluation tool to assess the measure and determine its recommendation.

The Lewin team was comprised of four staff with substantial experience in healthcare quality measurement and quality improvement. They began the evaluation process with a thorough literature search, focusing in particular on scientific literature evaluating the reliability, validity, use, or impact of the proposed quality measure. Once this initial step was completed, each member of the Lewin team scored the measures independently, using the evaluation tool.

Using the evaluation tool, members of the team scored the measure on each of four core dimensions: 1) ease of measurement, 2) reliability and validity, 3) field implementation, and 4) amenable to targeted improvement. Each dimension has uniquely well-defined scoring standards.

- *Ease of Measurement:* How straightforward is data collection and reporting for this measure?
- *Reliability and Validity:* How strong is the empirical evidence indicating that the measure is reliable and valid?
- *Field Implementation*: How widespread is the dissemination of the measure in the field?
- *Amenable to Targeted Improvement:* How reasonable is the expectation that targeted improvement at the level of measurement can affect performance on the measure?.

Individual scores were compared, differences discussed, and a final score on each of the four dimensions for each measure was generated and is reported here. Finally, the team calculated an average score and a preliminary rating for each measure – scores from the four dimensions were averaged to create a total score for the proposed measure which mapped to a weak, moderate, good, or strong preliminary rating for consideration by the SQAC.

III. Notable Assessment Challenges

For the most part, assessment of the proposed measures was straightforward and proceeded as described in the methods section above. However, several of the proposed measures for 2014 proved a challenge to assess. These included some of the clinical screening questionnaires, the Leapfrog set, the Hospice Item Set (HIS) and the patient engagement measures.

Clinical Survey Questionnaires

The measures that relied on patient questionnaires posed unique challenges. Many of these questionnaires are commonly and widely used in a range of settings to generate an index measure of a patient's health status or vulnerability to a health condition. Implementation of the questionnaire or the resulting patient index may be used for clinical care or internal quality improvement purposes. While widely deployed, however, their use as organization-wide process measures is less well known.

The Generalized Anxiety Disorder-7 set and the Columbia Suicide Severity Rating Scale scored well as **care quality** measurement tools (they both received a "Good" rating using the evaluation tool). The measures are useful for evaluating a patient clinically and might support internal quality initiatives. They are not, however, accompanied with specifications that allow one to evaluate the performance of the organization (e.g., percentage of relevant patients who received the screening).

The PHQ-9, which is a widely used depression screening questionnaire, has 3 associated NQF measures. One of the three, "Depression Utilization of the PHQ-9 Tool" assesses an organization's use of the screening tool. The others evaluate treatment outcomes by looking at remission at six and twelve months. The latter can be very helpful for assessing clinical effectiveness but are challenging to measure on an organization-wide basis Another behavioral health measurement tool, the Alcohol Use Disorder Identification Test (AUDIT), identifies the percentage of adults who were screened and given counseling and is thus more amenable for use as a quality process measure.

As candidates for statewide quality measurement, there are three questions for SQAC consideration:

1. Should we include measures where evaluating the prevalence of screening is not possible?
2. Should we include tools which may not be used by all provider organizations?
3. Are some of these measures used only by behavioral health professionals and outside of primary care's scope?

<u>Leapfrog Set</u>

The full Leapfrog set was nominated for addition to the SQMS. The Leapfrog hospital survey contains a broad range of questions that address many structural and process aspects of quality. The full set was difficult to evaluate using the existing evaluation rubric. For example, there are 8 NQF safe practice questionnaires that determine how a hospital prevents and mitigates patient safety events but these questionnaires are not measures in themselves. Similarly, there are individual hospital staffing and OR scheduling questions with the same evaluation limitations.

Embedded within the set, however, are fifteen measures that have NQF or CMS endorsement. Two are already in the SQMS (CPOE and Early Elective Deliveries). Three measures (PC-02, CLABSI and CAUTI) contained in the Leapfrog set were also nominated by others separate from the full Leapfrog recommendation. Seven NQF endorsed measures were evaluated specifically as part of Leapfrog. Two were rated as "Weak". Three measures, the 30-day risk adjusted readmission rates for AMI, Heart Failure and Pneumonia are CMS IQR measures and did not receive separate evaluations.

Given the mixed nature of the Leapfrog set and the inability to formally evaluate each component, how should we evaluate the full set for potential addition to the SQMS?

Hospice Item Set (HIS)

Starting in July 2014, CMS began requiring that hospices report on the Hospice Item Set (HIS). Many of these measures are relatively new and their utility as quality indicators was not fully developed. Our recommendations for these measures were notably conservative given the lack of evidence. Our expectation is that with time the HIS will prove a valuable addition to measurement of end-of-life care. Should all of these measures be accepted given their status as CMS quality measures or should some be withheld until additional evidence is available?

Patient Engagement Measures

The proposed patient engagement measures – the use and quality of shared decision-making (a series of procedural and screening surveys from MGH) and active patient engagement (a single item patient confidence scale) – pose a slightly different set of challenges. The measures have neither attained NQF endorsement nor are part of a nationally recognized measure set, and so do not pass the SQAC's initial assessment threshold. But, because there are no evident alternative measures and they reflect a very important area of quality measurement, they will be flagged for additional discussion by the SQAC.

MEASURE ASSESSMENT SUMMARY

(Measures highlighted in blue require discussion)

Measure Name	Ease of Measurement	Reliability and Validity	Field Implementation	Amenable to Targeted Improvement	Score	Preliminary Evaluation	Page
BEHAVIORAL HEALTH: CLINICAL SURVEY QUESTIONNAIRES							
Patient Health Questionnaire: the PHQ-9 (NQF 712)	2	3	3	3	2.75	Good	35
Generalized Anxiety Disorder 7-item (GAD-7)	1	3	2	2	2.0	Good	30
Columbia Suicide Severity Rating Scale	1	3	2	2	2.0	Good	33
Alcohol Use Disorder Identification Test (AUDIT)	1	4	3	3	2.75	Good	13
BEHAVIORAL HEALTH: OTHER PROPOSED MEASURES							
Post discharge continuing care plan created	1	2	4	3	2.5	Good	21
Post discharge continuing care plan transmitted to next level of care provider upon discharge	1	3	4	3	2.75	Good	16
Maternal Depression Screening	3	2	2	3	2.5	Good	23
PEDIATRIC CARE/BEHAVIORAL HEALTH							
Depression screening by 18 years of age	2	3	2	3	2.5	Good	26
Diagnosis of ADHD in primary care for school-aged children and adolescents	2	3	1	1	1.75	Moderate	37
Developmental Screening in first 3 years of life	3	0*	3	3	2.25	Weak	46
END OF LIFE CARE: HOSPICE ITEM SET							
Hospice Set: Dyspnea Screening	2	2	1	2	1.75	Moderate	41
Hospice Set: Dyspnea Treatment	2	2	1	2	1.75	Moderate	42
Hospice Set: Pain Screening	3	2	3	3	2.75	Good	20
Hospice Set: Pain Assessment	3	2	1	2	2.0	Good	32

Measure Name	Ease of Measurement	Reliability and Validity	Field Implementation	Amenable to Targeted Improvement	Score	Preliminary Evaluation	Page
Hospice Set: Patients Treated with an Opioid who are Given a Bowel Regimen	2	1*	1	2	1.5	Weak	43
END OF LIFE CARE/PATIENT CENTERED CARE							
Proportion admitted to hospice for less than 3 days	3	4	4	3	3.5	Strong	9
Beliefs/Values Addressed (if desired by the patient)	2	3	3	3	2.75	Good	15
Advance Care Plan	2	2	4	3	2.75	Good	18
Palliative and End of Life Care: Dyspnea Screening & Management	3	3	3	1	2.5	Good	25
CARE - Consumer Assessments and Reports of End of Life	1	2	1	3	1.75	Moderate	39
Family Evaluation of Palliative Care	1	1*	0	0	0. 5	Weak	49
PATIENT CENTERED CARE							
Active Patient Engagement	0	0*	1	1	0.5	Weak	47
Use and Quality of Shared Decision-Making	1	2	1	2	1.5	Moderate	44
LEAPFROG MEASURES							
High-risk Newborn Deliveries (PC-03)	2	3	4	3	3	Good	73
Newborn Bilirubin Screening & DVT Prophylaxis in Women Undergoing Cesarean Section	3	4	2	2	2.75	Good	77
Incidence of Episiotomy	3	2	4	1	2.5	Good	75
Aortic Valve Replacement	2	3	1	3	2.25	Good	69
Pancreatic Resection	3	2	3	2	2.5	Good	79
Abdominal Aortic Aneurysm Repair	3	1*	0*	1	1.25	Weak	67
Esophagectomy	3	1*	1	2	1.75	Weak	71

Measure Name	Ease of Measurement	Reliability and Validity	Field Implementation	Amenable to Targeted Improvement	Score	Preliminary Evaluation	Page
OTHER MEASURES							
PC-02 Cesarean Section	3	3	4	3	3.25	Strong	11
Patient Safety Composite	4	3	4	3	3.5	Strong	50
Pneumonia 30-day mortality rate	3	3	4	3	3.25	Strong	52
Heart failure 30-day mortality rate	3	3	4	3	3.25	Strong	54
AMI 30-day mortality rate	3	3	4	3	3.25	Strong	56
Hospital-onset methicillin resistant staphylococcus bacteremia aureus (MRSA)	4	3	3	3	3.25	Strong	58
Central-Line Associated Bloodstream Infection	2	3	4	3	3	Good	59
Hospital-onset *C. difficile*	2	3	4	3	3	Good	61
Catheter-Associated Urinary Tract Infections	2	2	4	3	2.75	Good	63
SSI Surgical Site Infection: SSI colon, SSI-abdominal hysterectomy	2	2	4	2	2.5	Good	65

*****Measure did not meet minimum threshold on this dimension.

Proposed Measure: Proportion admitted to hospice for less than 3 days

Description: Percentage of patients who died from cancer, and admitted to hospice and spent less than 3 days there.

Developer: American Society of Clinical Oncology.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 3
  Data collected through medical claims.

- **Reliability and Validity:** 4
  Sensitivity 0.97, Specificity 1.00, where sensitivity. This measure was 97% accurate.

- **Field Implementation:** 4
  The measure is reported publically: The American Society of Clinical Oncology (ASCO)´s Quality Oncology Practice Initiative (QOPI) uses a modified version of this measure and reports de-identified practice variation.

- **Amenable to Targeted Improvement:** 3
  There is evidence that interventions have increased days of stay for hospice care.

Overall Recommendation

Proportion admitted to hospice for less than 3 days: STRONG

- Average Score: 3.50
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 216)
- Met minimum scores on each evaluation dimension: Y
- References
  - Earle, Craig C., Mary Beth Landrum, Jeffrey M. Souza, Bridget A. Neville, Jane C. Weeks, and John Z. Ayanian. "Aggressiveness of Cancer Care Near the End of Life: Is It a Quality-of-Care Issue?" Journal of Clinical Oncology 26: 3860-3866.
  - Earle, Craig C., Bridget A. Neville, Mary Beth Landrum, Jeffrey M. Souza, Jane C. Weeks, Susan D. Block, Eva Grunfeld, and John Z. Ayanian. "Evaluating claims-based indicators of the intensity of end-of-life cancer care." International Journal for Quality in Health Care 17: 505–509.
  - Smith, Thomas J., Sarah Temin, Erin R. Alesi, Amy P. Abernethy, Tracy A. Balboni, Ethan M. Basch, Betty R. Ferrell, Matt Loscalzo, Diane E. Meier, Judith A. Paice, Jeffrey M. Peppercorn, Mark Somerfield, Ellen Stovall, and Jamie H. Von Roenn. "American Society of Clinical Oncology Provisional Clinical Opinion: The Integration of Palliative Care into Standard Oncology Care." Journal of Clinical Oncology 30: 880-887.

- Earle, Craig C., Bridget A. Neville, Mary Beth Landrum, John Z. Ayanian, Susan D. Block, and Jane C. Weeks. "Trends in the Aggressiveness of Cancer Care near the End of Life." Journal of Clinical Oncology 22: 315-321.

Proposed Measure: PC-02 Cesarean Section

Description: This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean section. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

Developer: The Joint Commission.

SQAC Priority Areas: Pediatric Care.

Measure Evaluation

- **Ease of Measurement:** 3
  Data is extracted from claims.

- **Reliability and Validity:** 3
  Since the measure has been in national use, continued face validity of the measure has been determined through analysis of feedback from measure users. Additionally, Joint Commission staff continually monitors the national literature and environment in order to assess continued validity of this measure. As noted previously, The Joint Commission is currently performing reliability site visits this year. A component of these visits will include focus group interviews with hospital staff working with the PC measures to obtain feedback regarding the validity of the measures and suggestions for further refinement of the specifications.

- **Field Implementation:** 4
  Widespread implementation.

- **Amenable to Targeted Improvement:** 3
  A reduction in the number of nulliparous patients with live term singleton newborns in vertex position delivering by cesarean section will result in increased patient safety, a substantial decrease in maternal and neonatal morbidity and substantial savings in health care costs. Successful quality improvement efforts incorporate audit and feedback strategies combined with provider and nurse education, guidelines and peer review.

Overall Recommendation

PC-02 Cesarean Section: STRONG

- Average Score: 3.25
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 471)

- Met minimum scores on each evaluation dimension: Y
- References
    - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. PC-02 Cesarean Section. NQF #0471. October 24, 2008.
    - National Perinatal Information Center- Quality Analytic Services. V.13.1 Special Report: Low Risk Primary C-section Analysis AHRQ Inpatient Quality Indictor (IQI) # 33 Primary Cesarean Delivery Rate, Uncomplicated. Version 4.5. May 2013.

Proposed Measure: Alcohol Use Disorder Identification Test (AUDIT)

Description: Percentage of patients aged 18 years and older who were screened for unhealthy alcohol use at least once during the two-year measurement period using a systematic screening method AND who received brief counseling if identified as an unhealthy alcohol user.

Developer: American Medical Association - convened Physician Consortium for Performance Improvement (AMA-convened PCPI).

SQAC Priority Areas: Behavioral Health.

Measure Evaluation

- **Ease of Measurement:** 1
  Requires face-to-face but can be done online. The data can be extracted from the medical record if noted by physician that a screening was completed and counseling provided.

- **Reliability and Validity:** 4
  Cross-national standardization: the AUDIT was validated on primary health care patients in six countries. It is the only screening test specifically designed for international use. Once the AUDIT had been published, the developers recommended additional validation research. In response to this request, a large number of studies have been conducted to evaluate its validity and reliability in different clinical and community samples throughout the world.

- **Field Implementation:** 3
  It has been used in primary care research and in epidemiological studies for the estimation of prevalence in the general population as well as specific institutional groups (e.g., hospital patients, primary care patients). Can be implemented in many healthcare settings and is amenable to be given either orally or as a written questionnaire.

- **Amenable to Targeted Improvement:** 3
  The AUDIT may have applications as an epidemiological tool in surveys of health clinics, health service systems, and general population samples. The AUDIT was developed as an international instrument but it could also be used to compare samples drawn from different national and cultural groups, with respect to the nature and prevalence of hazardous drinking, harmful drinking, and alcohol dependence.

Overall Recommendation

Alcohol Use Disorder Identification Test: GOOD

- Average Score: 2.75
- Meets SQAC Priority: Y

- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 2152)
- Met minimum scores on each evaluation dimension: Y
- References
    - Babor, Thomas F., John C. Higgins-Biddle, John B. Saunders, and Maristela G. Monteiro. "The Alcohol Use Disorders Identification Test-Guidelines for Use in Primary Care Second Edition." World Health Organization: n. pg.
    - Reinert, Duane F., and John P. Allen. "The Alcohol Use Disorders Identification Test: An Update of Research Findings." Alcoholism: Clinical and Experimental Research 31: 185-199.
    - Saunders, John B., Olaf G. Aasland, Thomas F. Babor, Juan R. De La Fuente, and Marcus Grant. "Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption-II." Addiction 88: 791-804.

Proposed Measure: Beliefs/Values Addressed (if desired by the patient)

Description: This measure reflects the percentage of hospice patients with documentation of a discussion of spiritual/religious concerns or documentation that the patient/caregiver/family did not want to discuss spiritual/religious concerns.

Developer: Deyta, LLC.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 2
  Electronic health records.

- **Reliability and Validity:** 3
  There is good evidence that the measure meets both standards for validity and reliability.

- **Field Implementation:** 3
  Currently used for public reporting, quality improvement with benchmarking (external benchmarking to multiple organizations), and internal quality improvement.

- **Amenable to Targeted Improvement:** 3
  Hospice care is an increasingly important piece of the healthcare continuum. Spiritual care has been shown to be a critical element of quality of life at the end of life. One of the unique aspects of hospice care involves a true interdisciplinary approach providing care for both the physical and psychosocial and spiritual needs of the patient and caregiver. This measure will help agencies improve processes for addressing spiritual/religious concerns for patients and families receiving hospice care.

Overall Recommendation

Beliefs/Values Addressed (if desired by the patient): GOOD

- Average Score: 3.0
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1647)
- Met minimum scores on each evaluation dimension: Y
- Reference
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Percentage of hospice patients with documentation in the clinical record of a discussion of spiritual/religious concerns or documentation that the patient/caregiver did not want to discuss. NQF #1647. December 2008.

Proposed Measure: Post discharge continuing care plan transmitted to next level of care provider upon discharge

Description: Patients discharged from a hospital-based inpatient psychiatric setting with a continuing care plan provided to the next level of care clinician or entity. This measure is defined by The Joint Commission under HBIBPS-7a "overall rate" for acute care and HBIBPS-7b children (1 through 12 years) for pediatric.

Developer: The Joint Commission.

SQAC Priority Areas: Behavioral Health.

Measure Evaluation

- **Ease of Measurement:** 1
  All data elements to be collected from chart review. Could be in EHR but a review is required as opposed to data extraction.

- **Reliability and Validity:** 3
  All of the HBIPS measures have undergone a rigorous process of public comment, alpha testing and broad-scale pilot testing and are recognized by the field as important indicators of hospital-based inpatient psychiatric care.

- **Field Implementation:** 4
  Measure is implemented by the following types of institutions: Accreditation Care coordination; Collaborative inter-organizational quality improvement; internal quality improvement; public reporting.

- **Amenable to Targeted Improvement:** 3
  There is strong evidence and multiple studies that interventions at the level of analysis can be effective. Improved communication among clinicians and improved continuity of care can improve the quality of mental health care for suicidal patients.

Overall Recommendation

Post discharge continuing care plan transmitted to next level of care provider upon discharge: GOOD

- Average Score: 2.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 558)
- Met minimum scores on each evaluation dimension: Y
- References

- Measure Information Form Measure Set: Hospital Based Inpatient Psychiatric Services (HBIPS)". Joint Commission National Quality Measure, 1 Jan. 2013. Web. 3 July 2014.
- "Hospital-based inpatient psychiatric services: the percentage of patients discharged from a hospital-based inpatient psychiatric setting with a continuing care plan provided to the next level of care clinician or entity". Agency for Healthcare Research and Quality, n.d. Web. 3 July 2014.
- Alakeson, Vidhya, Nalini Pande, and Michael Ludwig. "A Plan to Reduce Emergency Room 'Boarding' Of Psychiatric Patients." Health Affairs 29: 1637-1642.
- Adair, Carol E., Gerald M. McDougall, Craig R. Mitton, Anthony S. Joyce, T. Cameron Wild, Alan Gordon, Norman Costigan, Laura Kowalsky, Gloria Pasmeny, and Anora Beckie. "Continuity of Care and Health Outcomes among Persons with Severe Mental Illness." Psychiatric Services 56: 1061-1069.

Proposed Measure: Advance Care Plan

Description: Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

Developer: National Committee for Quality Assurance.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 2
  The measure can be tracked in the medical record but must be performed face to face by a physician.

- **Reliability and Validity:** 2
  There is mixed evidence, a few studies have determined the measure is valid and reliable while others have disagreed.

- **Field Implementation:** 4
  Current Use: Internal quality improvement, pay-for-reporting, professional certification, and public reporting.

- **Amenable to Targeted Improvement:** 3
  There is evidence that interventions directly related to the measure can improve clinical practice, "Through a collaborative approach to developing and implementing common clinical practice guidelines and performance measures for advance care planning, Michigan health plans will achieve consistent delivery of evidence-based services and better outcomes."

Overall Recommendation

Advance Care Plan: GOOD

- Average Score: 2.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 326)
- Met minimum scores on each evaluation dimension: Y
- References
  - National Quality Measures Clearinghouse. Measure Summary. Geriatrics: percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish

or was not able to name a surrogate decision maker or provide an advance care plan. Agency for Healthcare Research and Quality. July 2009.

- Yung, Victoria Y., Anne M. Walling, Lillian Min, Neil S. Wenger, and David A. Ganz. "Documentation of Advance Care Planning for Community-Dwelling Elders." Journal of Palliative Medicine 13: 861-867.

Proposed Measure: Hospice Set: Pain Screening

Description: Percentage of hospice or palliative care patients who were screened for pain during the hospice admission evaluation/palliative care initial encounter.

Developer: UNC-Chapel Hill.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 3
  Data source is electronic health record.

- **Reliability and Validity:** 2
  Mixed evidence. The nurse abstractors achieved excellent inter-rater reliability for this measure with Kappa=1.0. Intensive care and geriatrics clinicians endorsed the primary importance of pain screening and assessment, but expressed doubts about the validity of numerical pain severity ratings when used for nonverbal or confused patients.

- **Field Implementation:** 3
  Current Use: Quality Improvement (Internal to the specific organization). Use of the Hospice and Palliative Care - Pain Screening and Hospice and Palliative Care - Pain Assessment quality measures for public reporting requires rigorous peer review, NQF endorsement and subsequent policy change to facilitate data access for public use.

- **Amenable to Targeted Improvement:** 3
  Use of the Pain Screening and Pain Assessment quality measures will increase reporting and efforts to improve awareness of the presence of pain (screening) and assessment of severity, etiology and effect on function (assessment) which are the two essential first steps required for quality pain management and treatment.

Overall Recommendation

Hospice Set: Pain Screening: GOOD

- Average Score: 2.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1634)
- Met minimum scores on each evaluation dimension: Y
- Reference
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospice and Palliative Care - Pain Screening. NQF #1634. 2010.

Proposed Measure: Post discharge continuing care plan created

Description: This measure is used to assess the percentage of patients discharged from a hospital-based inpatient psychiatric setting with a continuing care plan created. This measure represents the overall rate. The following rates are also reported: Children age 1 through 12 years; Adolescent age 13 through 17 years; Adult age 18 through 64 years; Older adult age greater than or equal to 65 years

Developer: The Joint Commission.

SQAC Priority Areas: Behavioral Health.

Measure Evaluation

- **Ease of Measurement:** 1
  All data elements to be collected from chart review. Could be in EHR but a review is required as opposed to data extraction.

- **Reliability and Validity:** 2
  The measure meets the Scientific Acceptability criteria. The Steering Committee agreed the measure meets the criteria, but questioned why the measure did not include medical problems in the continuing care plan for follow-up, noting that if fifty percent of psychiatric patients have a medical problem, that illness should be included in the continuing care plan. Reliability - precise specifications, testing; Validity - testing, threats to validity

- **Field Implementation:** 4
  Measure is implemented by the following types of institutions: Accreditation Care coordination; Collaborative inter-organizational quality improvement; Internal quality improvement; Public reporting.

- **Amenable to Targeted Improvement:** 3
  There is strong evidence and multiple studies demonstrating how continuity of care improves patient care and decreases suicide rates. Augmenting those records will improve the measure.

Overall Recommendation

Post discharge continuing care plan created: GOOD

- Average Score: 2.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 557)
- Met minimum scores on each evaluation dimension: Y
- References

- National Quality Measures Clearinghouse. Measure Summary NQMC-7528. Hospital-based inpatient psychiatric services: the percentage of patients discharged from a hospital-based inpatient psychiatric setting with a continuing care plan created. Agency for Healthcare Research Quality. February 2013.
- Boyer, Carol A., Donna D. McAlpine, Kathleen J. Pottick, and Mark Olfson. "Identifying Risk Factors and Key Strategies in Linkage to Outpatient Psychiatric Care." American Journal of Psychiatry 157: 1592-1598.
- Puschner, Bernd, Sabine Steffen, Wolfgang Gaebel, Harald Freyberger, Helmfried E Klein, Tilman Steinert, Rainer Muche, and Thomas Becker. "Needs-oriented discharge planning and monitoring for high utilisers of psychiatric services (NODPAM): Design and methods." BioMed Central Health Services Research 8: n. pg.
- Naylor, Mary D., Linda H. Aiken, Ellen T. Kurtzman, Danielle M. Olds, and Karen B. Hirschman. "The Importance of Transitional Care in Achieving Health Reform." Health Affairs 30: 746-754.

Proposed Measure: Maternal Depression Screening

Description: The percentage of children 6 months of age who had documentation of a maternal depression screening for the mother.

Developer: National Committee for Quality Assurance.

SQAC Priority Areas: Pediatric Care.

Measure Evaluation

- **Ease of Measurement:** 3
  The screening is face-to-face but data is collected from a notation in the medical record.

- **Reliability and Validity:** 2
  Many of the screening instruments have been validated for use in the adult population but have not been studied specifically for their reliability to identify depression among pregnant women and new mothers.

- **Field Implementation:** 2
  Unfortunately, screening for maternal depression is not standard, and treatment does not always follow a diagnosis. A study reported that about 40% of those surveyed reported screening for maternal depression but of those that did there was positive results.

- **Amenable to Targeted Improvement:** 3
  Interventions based off the measure being taken in pediatric offices increased improved clinical practices. Pediatric clinicians intervened with 62.4% of mothers who screened positive and 38.2% of mothers with lesser symptoms. Pediatrician actions included discussion of the impact on the child, a follow-up visit or call, and referral to an adult primary care provider, a mental health clinician, or community supports. Findings from this study suggest that maternal depression screening during well-child visits is feasible and adds significant value.

Overall Recommendation

Maternal Depression Screening: GOOD

- Average Score: 2.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1401)
- Met minimum scores on each evaluation dimension: Y
- References
  - Olson, Ardis L., Allen J. Dietrich, Greg Prazar, and James Hurley. "Brief Maternal Depression Screening at Well-Child Visits." Pediatrics 118: 207-216.

- Santoro, Kathryn, Hillary Peabody, and Julie Schoenman. "Identifying and Treating Maternal Depression: Strategies and Considerations for Health Plans." n. pg.

Proposed Measure: Palliative and End of Life Care: Dyspnea Screening and Management

Description: 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.

Developer: National Committee for Quality Assurance.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 3
  Data source is electronic health record.

- **Reliability and Validity:** 3
  Inter-rater reliability between the two abstractors was assessed using kappa statistics. The nurse abstractors achieved excellent inter-rater reliability for this measure. Validity was also extensively tested.

- **Field Implementation:** 3
  Current report is public.

- **Amenable to Targeted Improvement:** 1
  While no published data regarding a quality gap or variation in performance are available for this measure topic, the work group was in consensus that this is an aspect of care that is not regularly performed for all patients. Through implementation and testing of this measure, it is expected that we will be able to collect data that will help us demonstrate whether or not a gap in care or variation in performance exists.

Overall Recommendation

Palliative and End of Life Care: Dyspnea Screening and Management: GOOD

- Average Score: 2.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y
- Met minimum scores on each evaluation dimension: Y
- Reference
  - National Quality Measures Clearinghouse. Measure Summary NQMC- 7589. Palliative and end-of-life care: percentage of hospice or palliative care patients who were screened for dyspnea during the hospice admission evaluation/palliative care initial encounter. January 2010.

Proposed Measure: Depression screening by 18 years of age

Description: The percentage of adolescents 18 years of age who had a screening for depression using a standardized tool.

Developer: National Committee for Quality Assurance.

SQAC Priority Areas: Pediatric Care.

Measure Evaluation

- **Ease of Measurement:** 2
  Data Source: Electronic Clinical Data, Paper Medical Records. This measure does not utilize administrative data sources.

- **Reliability and Validity:** 3
  Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability. Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity. This measure was deemed valid by the expert panel.

- **Field Implementation:** 2
  Despite the prevalence of mental health concerns, most adolescents are undiagnosed and untreated (USPSTF, 2009). The measure is currently in use for public reporting and internal quality improvement.

- **Amenable to Targeted Improvement:** 3
  Early intervention in adolescents diagnosed with depression can lead to needed treatment. Once depression is diagnosed, around 95 percent of physicians report further assessment of specific symptoms and contributing factors. Another study found that 52 percent of the times that depression was reported in adolescent primary care visits, antidepressants were prescribed; 68 percent of cases led to psychotherapy or counseling (Williams SB, 2009).

Overall Recommendation

Depression screening by 18 years of age: GOOD

- Average Score: 2.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1515)
- Met minimum scores on each evaluation dimension: Y
- References
  - National Quality Forum. Measure Information. Depression Screening By 18 Years of Age. NQF #1515. August 15, 2011.

- National Quality Forum. Measure missing data in MSF 6.5 from MSF 5.0. Depression Screening By 18 Years of Age. NQF #1515. April 3, 2013.
- Zima, Bonnie T., J. Michael Murphy, Sarah Hudson Scholle, Kimberly Eaton Hoagwood, Ramesh C. Sachdeva, Rita Mangione-Smith, Donna Woods, Hayley S. Kamin, and Michael Jellinek. "National Quality Measures for Child Mental Health Care: Background, Progress, and Next Steps." Pediatrics 131: S38-S49.

Proposed Measure: Family Evaluation of Hospice Care

Description: Composite Score: Derived from responses to 17 items on the Family Evaluation of Hospice Care (FEHC) survey presented as a single score ranging from 0 to 100. Global Score: Percentage of best possible response (Excellent) to the overall rating question on the FEHC survey. Target Population: The FEHC survey is an after-death survey administered to bereaved family caregivers of individuals who died while enrolled in hospice. Timeframe: The survey measures family members' perception of the quality of hospice care for the entire enrollment period, regardless of length of service.

Developer: National Hospital and Palliative Care Organization.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 1
  Data Source: Patient Reported Data/Survey.

- **Reliability and Validity:** 2
  During development, the survey was tested and validated for consistency and accuracy in capturing the perception of quality of care delivery from the bereaved family's perspective. The results are mixed with race and ethnicity being a risk factor to validity here is good evidence that the measure meets both standards for validity and reliability.

- **Field Implementation:** 2
  The Family Evaluation of Hospice Care (FEHC) survey is the most widely used tool for measuring and tracking the quality of hospice care being provided to patients and families.

- **Amenable to Targeted Improvement:** 4
  Use of this measure affords hospices a valid means of ensuring quality of care by providing useful, meaningful, and actionable information that can be incorporated into their Quality Assurance/Performance Improvement (QAPI) programs. Implementation of a QAPI program is a requirement in the Medicare Conditions of Participation for hospices. Use of the measure will facilitate improved quality in the following aspects of hospice care: symptom management, communication provision of information, emotional support, and care coordination.

Overall Recommendation

Family Evaluation of Hospice Care: GOOD

- Average Score: 2.25
- Meets SQAC Priority: Y

- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 208)
- Met minimum scores on each evaluation dimension: Y
- References
    - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Family Evaluation of Hospice Care. NQF #0208. August 10, 2009.
    - Connor, Stephen R., Joan Teno, Carol Spence, and Neal Smith. "Family Evaluation of Hospice Care: Results from Voluntary Submission of Data Via Website." Journal of Pain and Symptom Management 30: 9-17.

Proposed Measure: Generalized Anxiety Disorder 7-item

Description: The GAD-7 is a seven-item anxiety scale, which uses a response set similar to the PHQ-9 and was initially developed to diagnose generalized anxiety disorder and validated in 2740 primary care patients, though it has also proved to have good sensitivity and specificity as a screener for panic, social anxiety, and post-traumatic stress disorder (PTSD).

Developer: Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc.

SQAC Priority Areas: Behavioral Health.

Measure Evaluation

- **Ease of Measurement:** 1
  Survey has to be done fact-to-face or via telephone; the 7-item Generalized Anxiety Disorder Scale (GAD-7) is a practical self-report anxiety questionnaire that proved valid in primary care.

- **Reliability and Validity:** 3
  A 7-item anxiety scale (GAD-7) had good reliability, as well as criterion, construct, factorial, and procedural validity. The GAD-7 is a valid and efficient tool for screening for GAD and assessing its severity in clinical practice and research.

- **Field Implementation:** 2
  Although the GAD-7 was developed and validated in primary care, we expect that, like the PHQ-9 depression measure, the GAD-7 will have considerable utility in busy mental health settings and clinical research, which is especially important given the high prevalence and substantial disability associated with GAD.

- **Amenable to Targeted Improvement:** 2
  Although the literature has demonstrated that the measure is useful for identifying GAD, there is less evidence that the measure is connected to or can assist in improvement.

Overall Recommendation

Generalized Anxiety Disorder 7-item: GOOD

- Average Score: 2
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF GAD-7)
- Met minimum scores on each evaluation dimension: Y
- References

- Spitzer, Robert L., Kurt Kroenke, Janet B. W. Williams, and Bernd Lowe. "A Brief Measure for Assessing Generalized Anxiety Disorder." Arch Intern Med 166: 1092-1097.
- Lowe, Bernd, Oliver Decker, Stefanie Muller, Elmar Brahler, Dieter Schellberg, Wolfgang Herzog, and Philipp Yorck Herzberg. "Validation and Standardization of the Generalized Anxiety Disorder Screener (GAD-7) in the General Population." Medical Care 46: 266–274.

Proposed Measure: Hospice Set: Pain Assessment

Description: Percentage of hospice or palliative care patients who screened positive for pain and who received a clinical assessment of pain within 24 hours of screening.

Developer: UNC-Chapel Hill.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 3
  Data source is electronic health record.

- **Reliability and Validity:** 2
  The nurse abstractors achieved excellent inter-rater reliability for this measure with Kappa=.94. Intensive care and clinicians endorsed the primary importance of pain screening and assessment, but expressed doubts about the validity of numerical pain severity ratings when used for nonverbal or confused patients.

- **Field Implementation:** 1
  Use in Palliative Care - Pain Assessment quality measures for public reporting requires rigorous peer review. Now used for public reporting as part of the CMS' Hospice Item Set (HIS). The Pain Assessment measure is meaningful and understandable for quality measurement. The measure separates simple screening from meaningful clinical assessment of pain in order to improve treatment and the patient experience.

- **Amenable to Targeted Improvement:** 2
  Use of the Pain Screening and Pain Assessment quality measures will increase reporting and efforts to improve awareness of the presence of pain (screening) and assessment of severity, etiology and effect on function (assessment) which are the two essential first steps required for quality pain management and treatment.

Overall Recommendation

Hospice Set: Pain Assessment: GOOD

- Average Score: 2.0
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1637)
- Met minimum scores on each evaluation dimension: Y
- Reference
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospice and Palliative Care - Pain Assessment. NQF #1637. 2010.

Proposed Measure: Columbia Suicide Severity Rating Scale

Description: The Columbia Suicide Severity Rating Scale (C-SSRS) is a questionnaire used for suicide assessment.

Developer: Columbia University.

SQAC Priority Areas: Behavioral Health.

Measure Evaluation

- **Ease of Measurement:** 1
  The screening is face-to-face and data is collected from a notation in the medical record; feasible and low burden (12-13 minutes to administer the test). There is also a computer-automated version of the Columbia-Suicide Severity Rating Scale (C-SSRS) using interactive voice response technology (eC-SSRS).

- **Reliability and Validity:** 3
  The C-SSRS demonstrated good convergent and divergent validity with other multi-informant suicidal ideation and behavior scales and had high sensitivity and specificity for suicidal behavior classifications compared with another behavior scale and an independent suicide evaluation board. Evidence from this study clearly supports the feasibility of the eC-SSRS as an effective means for prospectively monitoring suicidality in clinical trial research and practice.

- **Field Implementation:** 2
  Used in multiple establishments and evaluated positively including government and public reporting as a tool for identifying risk; there is less evidence for use as a quality measure.

- **Amenable to Targeted Improvement:** 2
  Although the literature has demonstrated that the measure assists in identifying those that are suicidal it does not prove that improvements in clinical practice and decreasing suicides are directly related.

Overall Recommendation

Columbia Suicide Severity Rating Scale: GOOD

- Average Score: 2
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (WHO, JACHO, CDC)
- Met minimum scores on each evaluation dimension: Y
- References

- "Where The C-SSRS Is Used." Columbia University Medical Center, n.d. Web. 24 June 2014. Mundt, James C., John H. Greist, Alan J. Gelenberg, David J. Katzelnick, James W. Jefferson, and Jack G. Modell. "Feasibility and validation of a computer-automated Columbia-Suicide severity rating scale using interactive voice response technology." Journal of Psychiatric Research 44: 1224-1228.
- Mundt, James C., John H. Greist, James W. Jefferson, Michael Federico, J. John Mann, and Kelly Posner. "Prediction of Suicidal Behavior in Clinical Research by Lifetime Suicidal Ideation and Behavior Ascertained by the Electronic Columbia-Suicidal Severity Rating Scale." Journal of Clinical Psychiatry 74: e1-e7.

Proposed Measure: Depression Utilization of the Patient Health Questionnaire: the PHQ-9 (NQF 712)

Description: Adult patients age 18 and older with the diagnosis of major depression or dysthymia who have a PHQ-9 tool administered at least once during the four month measurement period. The Patient Health Questionnaire (PHQ-9) tool is a widely accepted, standardized tool that is completed by the patient, ideally at each visit, and utilized by the provider to monitor treatment progress.
This process measure is related to the outcome measures of "Depression Remission at Six Months" (NQF 710) and "Depression Remission at Twelve Months"(NQF 711). This measure was selected by stakeholders for public reporting to promote the implementation of processes within the provider's office to insure that the patient is being assessed on a routine basis with a standardized tool that supports the outcome measures for depression.

Developer: The Joint Commission.

SQAC Priority Areas: Behavioral Health.

Measure Evaluation

- **Ease of Measurement:** 2
  Requires face-to-face but can be done online. Short questionnaire can be administered in person, telephone, or self-administered but may not accurately assess for thoughts of self-harm.

- **Reliability and Validity:** 3
  Well validated/documented in variety of populations. PHQ-9 has been studied and validated to be used as a measure to track severity over time. Overall, the PHQ-9 patient reported outcome tool demonstrates sound psychometric properties (reliability, validity, specificity and sensitivity to change) and is appropriate for measuring patient outcomes related to depression.

- **Field Implementation:** 3
  The measure has been implemented widely in the field and proven to assist in diagnosis of depression and monitoring change. This measure is one of three NQF measures that attempt to assess the use of the PHQ-9 for improving outcomes for patients diagnosed with depression. Used in public reporting (CMS Meaningful Use) and internal quality improvement.

- **Amenable to Targeted Improvement:** 3
  Measure is currently in routine use for internal quality improvement and public reporting, with clear linkages to improved outcomes.

Overall Recommendation

Patient Health Questionnaire: the PHQ-9: MODERATE

- Average Score: 2.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 710, 711, 712)
- Met minimum scores on each evaluation dimension: Y
- References
    - "PHQ-9". IMPACT- Evidence-based depression care, n.d. Web. 23 June 2014.
    - "Adult depression in primary care: percentage of patients whose symptoms are reassessed by the use of a quantitative symptom assessment tool (such as PHQ-9) within three months of initiating treatment." National Quality Measures Clearinghouse, 1 Sept. 2013. Web. 24 June 2014.
    - "Depression: percent of clinically significant depression patients who attain a 5 point or greater reduction in Patient Health Questionnaire (PHQ) score within 6 months after their New Episode PHQ." National Quality Measures Clearinghouse, 1 Jan. 2005. Web. 24 June 2014.

Proposed Measure: Diagnosis of ADHD in primary care for school-aged children and adolescents

Description: Percentage of patients newly diagnosed with attention deficit hyperactivity disorder (ADHD) whose medical record contains documentation of Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) or Diagnostic and Statistical Manual for Primary Care (DSM-PC) criteria. Note: the measure steward (ICSI) is also advocating a transition to DSM-5 criteria to replace DSM-IV.

Developer: Institute for Clinical Systems Improvement.

SQAC Priority Areas: Pediatric Care.

Measure Evaluation

- **Ease of Measurement:** 2
  Measure generated via query of electronic medical record (EMR) for all patients diagnosed with ADHD in the past 12 months from the measurement date.

- **Reliability and Validity:** 3
  Diagnostic criteria for ADHD are based on extensive empirical research and, if applied appropriately, lead to the diagnosis of a syndrome with high inter-rater reliability, good face validity, and high predictability of both treatment course and medication responsiveness.

- **Field Implementation:** 1
  Lack of evidence that demonstrates the measure has been implemented. The diagnosis and management of ADHD in children and youth has been particularly challenging for primary care clinicians because of the limited payment provided.

- **Amenable to Targeted Improvement:** 1
  There is evidence that the measure is necessary but not much literature on implementation of the intervention in relation to performance of the measure.

Overall Recommendation

Diagnosis of ADHD in primary care for school-aged children and adolescents: MODERATE

- Average Score: 1.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 106)
- Met minimum scores on each evaluation dimension: Y
- References
  - "ADHD, Attention Deficit Hyperactivity Disorder in Primary Care for School-Age Children and Adolescents." Institute for Clinical Systems Improvement, n.d. Web. 24 June 2014.

- "Clinical Practice Guideline: Treatment of the School-Aged Child with Attention-Deficit/Hyperactivity Disorder." American Academy of Pediatrics 108: 1033-1044.
- Goldman, Larry S., Myron Genel, Rebecca J. Bezman, and Priscilla J. Slanetz. "Diagnosis and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents." JAMA 279: 1100-1107.
- "ADHD: Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of Attention-Deficit/ Hyperactivity Disorder in Children and Adolescents." Pediatrics 128: 1007-1022.
- Zima, Bonnie T., J. Michael Murphy, Sarah Hudson Scholle, Kimberly Eaton Hoagwood, Ramesh C. Sachdeva, Rita Mangione-Smith, Donna Woods, Hayley S. Kamin, and Michael Jellinek. "National Quality Measures for Child Mental Health Care: Background, Progress, and Next Steps." Pediatrics 131: S38-S49.

Proposed Measure: CARE - Consumer Assessments and Reports of End of Life

Description: The CARE survey is mortality follow back survey that is administered to the bereaved family members of adult persons (age 18 and older) who died of a chronic progressive illness receiving services for at least 48 hours from a home health agency, nursing homes, hospice, or acute care hospital. The survey measures perceptions of the quality of care either in terms of unmet needs, family reports of concerns with the quality of care, and overall rating of the quality of care. The time frame is the last 2 days of life up to last week of life spent in a hospice, home health agency, hospital, or nursing home.

Developer: Center for Gerontology and Health Care Research.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 1
  Face-to-face or telephone survey.

- **Reliability and Validity:** 2
  The initial work on reliability and validity of the CARE Instrument (as well as the Family Evaluation of hospice care) survey was completed on a sample of 156 bereaved family members who died receiving care from hospice, nursing home, and hospital. This was published in JPSM in 2001. The results are mixed due to the rate change based on race and location.

- **Field Implementation:** 1
  The CARE survey is not currently used in public reporting. Parts of the FEHC are used in public reporting in Florida and a project by the American Hospice Foundation.

- **Amenable to Targeted Improvement:** 3
  Although it is not widely implemented, it has been incorporated into the bereavement toolkit which resulted in positive results. The 2004 JAMA study noted significant opportunities to improve with evidence of less than optimal performance across settings of care. Family members of persons who died with hospice service reported fewer problems in each of the six domains of medical care, gave a higher rating of the quality of care, and reported higher self-efficacy in caring for their loved ones. Results of this study provide evidence of the important unmet needs and concerns with the quality of care of the dying.

Overall Recommendation

CARE - Consumer Assessments and Reports of End of Life: MODERATE

- Average Score: 1.75

- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1632)
- Met minimum scores on each evaluation dimension: Y
- Reference
    - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0.CARE - Consumer Assessments and Reports of End of Life. NQF #1632. June 12, 2011.

Proposed Measure: Hospice Set: Dyspnea Screening

Description: Percentage of hospice or palliative care patients who were screened for dyspnea during the hospice admission evaluation / palliative care initial encounter.

Developer: UNC-Chapel Hill.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 2
  Data source is electronic health record.

- **Reliability and Validity:** 2
  Mixed evidence. The nurse abstractors achieved excellent inter-rater reliability for this measure: Kappa=0.91. Medical oncologists endorsed the face validity of these quality measures, but favored quality measures endorsed by oncology professional organizations.

- **Field Implementation:** 1
  Use of the Hospice and Palliative Care - Dyspnea Screening and Hospice and Palliative Care - Dyspnea Treatment quality measures for public reporting requires rigorous peer review, NQF endorsement and subsequent policy change to facilitate data access for public use. The measure has only been used by internal organizations.

- **Amenable to Targeted Improvement:** 2
  This measure is paired with another measure and therefore does not have evidence to prove it alone can improve clinical practices.

Overall Recommendation

Hospice Set: Dyspnea Screening: MODERATE

- Average Score: 1.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1639)
- Met minimum scores on each evaluation dimension: Y
- Reference
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospice and Palliative Care -Dyspnea Screening. NQF #1639. 2010.

Proposed Measure: Hospice Set: Dyspnea Treatment

Description: Percentage of hospice or palliative care patients who were treated for dyspnea during the hospice admission evaluation / palliative care initial encounter.

Developer: UNC-Chapel Hill.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 2
  Data source is electronic health record.

- **Reliability and Validity:** 2
  Mixed evidence. The nurse abstractors achieved excellent inter-rater reliability for this measure: Kappa=0.89. Stakeholder discussions provided broad endorsement of face validity, with some considerations for specific patient populations. Medical oncologists endorsed the face validity of these quality measures, but favored quality measures endorsed by oncology professional organizations.

- **Field Implementation:** 1
  Currently used for quality improvement (internal to the specific organization).

- **Amenable to Targeted Improvement:** 2
  This measure is paired with another measure and therefore does not have evidence to prove it alone can improve clinical practices.

Overall Recommendation

Hospice Set: Dyspnea Treatment: MODERATE

- Average Score: 1.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1638)
- Met minimum scores on each evaluation dimension: Y
- References
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospice and Palliative Care -Dyspnea Treatment. NQF #1638. 2010.
  - "Federal Register." 78: 48234-48281. Print.
  - "Privacy Act of 1974, Report of New System of Records.". Centers for Medicare & Medicaid Services, 8 Apr. 2014. Web. 18 June 2014.

Proposed Measure: Hospice Set: Patients Treated with an Opioid who are Given a Bowel Regimen

Description: Percentage of vulnerable adults treated with an opioid that are offered/prescribed a bowel regimen or documentation of why this was not needed.

Developer: UNC-Chapel Hill.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 2
  Data source is electronic health records.

- **Reliability and Validity:** 1
  Overall eligibility kappa=0.87; overall specified care kappa=0.86. Although validity has not been tested empirically for this measure alone, the process-outcome link of the set of quality measures including this measure has been tested.

- **Field Implementation:** 1
  Currently used for quality improvement (internal to the specific organization).

- **Amenable to Targeted Improvement:** 2
  There is no clinical trial directly linking the care process in this measure with outcomes. However, the clinical effect of the care process on opiate use is clear, as reflected in clinical guidelines recommending constipation prophylaxis.

Overall Recommendation

Hospice Set: Patients Treated with an Opioid who are Given a Bowel Regimen: WEAK

- Average Score: 1.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1617)
- Met minimum scores on each evaluation dimension: N
- References
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Patients Treated with an Opioid who are Given a Bowel Regimen. NQF #1617.2001.
  - "Federal Register." 78: 48234-48281. Print.
  - "Privacy Act of 1974, Report of New System of Records.". Centers for Medicare & Medicaid Services, 8 Apr. 2014. Web. 18 June 2014.

Proposed Measure: Use and Quality of Shared Decision-Making

Description: The decision quality instruments measure the extent to which patients are informed and meaningfully involved in decision making and receive treatments that match their goals. Details about the development process and scoring guides are available at http://www.massgeneral.org/decisionsciences/. Survey instruments are available for the following elective surgical procedures: 1. Herniated disc, 2. Spinal Stenosis, 3. Total knee replacement, 4. Total hip replacement, and 5. Coronary revascularization for stable angina (Bypass/stents). They have developed and tested survey instruments for the following screening and treatment decisions: 1. Breast cancer surgery, 2. Breast reconstruction, 3. Prostate cancer treatment, 4. Prostate cancer testing (PSA), and 5. Colon cancer testing. They also have a set of items that more generally assess the extent to which clinicians engaged patients in shared decision making. In addition to engaging patients in making decisions about treatments for which there are multiple options, decision-making tools often lead to a decrease in overuse of inappropriate care.

Developer: Informed Medical Decision Foundation and MA General Hospital.

SQAC Priority Areas: Patient-Centered Care.

Measure Evaluation

- **Ease of Measurement:** 1
  Survey has to be done fact-to-face or via telephone.

- **Reliability and Validity:** 2
  On Reliability: results are reasonably high (often in the .6 to .8 range). Thus there is some evidence at the patient level and at the practice level that these scores are valid measures of the quality of the decision making process and that they can be used to assess the quality of decision making at a clinical site. However, the survey lacks face validity and construct validity.

- **Field Implementation:** 1
  Limited evidence of implementation.

- **Amenable to Targeted Improvement:** 2
  Measure is too new to demonstrate a direct correlation to clinical improvement.

Overall Recommendation

Use and Quality of Shared Decision-Making: MODERATE

- Average Score: 1.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: N

- Met minimum scores on each evaluation dimension: Y
- References
    - Edwards, A, G Elwyn, K Hood, C Atwell, M Robling, H Houston, P Kinnersley, and I Russell. "Patient-based outcome results from a cluster randomized trial of shared decision making skill development and use of risk communication aids in general practice." Family Practice 21: 347-354.
    - Sepucha KR. Knee [or Hip] Osteoarthritis Decision Quality Instrument v.2.0. ©Massachusetts General Hospital, 2010 [updated 2012]. Downloaded from: http://www.massgeneral.org/decisionsciences/research/DQ_Instrument_List.aspx.
    - O'Connor, Annette M., Hilary A. Llewellyn-Thomas, and Ann Barry Flood. "Modifying Unwarranted Variations In Health Care: Shared Decision Making Using Patient Decision Aids A review of the evidence base for shared decision making." Informed Medical Decisions Foundation Health Affairs: VAR-63 - VAR- 72. Web. 23 June 2014.

Proposed Measure: Developmental Screening in first 3 years of life

Description: The percentage of children screened for risk of developmental, behavioral and social delays using a standardized screening tool in the first three years of life. This is a measure of screening in the first three years of life that includes three, age-specific indicators assessing whether children are screened by 12 months of age, by 24 months of age and by 36 months of age.

Developer: National Committee for Quality Assurance.

SQAC Priority Areas: Pediatric Care.

Measure Evaluation

- **Ease of Measurement:** 3
  Collected through claims data.

- **Reliability and Validity:** 0
  No formal reliability testing has been conducted; however measures of screening have been collected with the ABCD/Head start community since 2003. No formal validity -testing has been conducted.

- **Field Implementation:** 3
  Several states have implemented the measure and they are finding ways to improve screening. One document stated the usage is for public reporting and quality improvement.

- **Amenable to Targeted Improvement:** 3
  Interventions have been demonstrated in the literature that has positively improved clinical practice as a result of the measure.

Overall Recommendation

Developmental Screening in first 3 years of life: WEAK

- Average Score: 2.25
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1448)
- Met minimum scores on each evaluation dimension: N
- References
  - National Quality Measures Clearinghouse. Measure Summary NQMC-2972. Standardized Development and Behavior Screening: Proportion of Children whose Health Care Provider Administered a Parent-Completed Standardized Developmental and Behavioral Screening Tool. Agency for Healthcare Research and Quality.
  - "State Level Measure of Developmental Screening in the First 3 Years of Life." Child & Adolescent Health Measurement Initiative: n. pg.

Proposed Measure: Active Patient Engagement

Description: The inclusion of "active patient engagement" is a critical measure for patient-centered care. Ensuring that patients have the knowledge, skills and confidence to engage in their care and take an active role in managing their health and health care is key to both improving health outcomes and patient experience and is simultaneously likely to reduce costs associated with adverse care. "Health Confidence," as measured through the free Dartmouth web-based tool www.hows your health.org, is a useful, single item substitute for the evidence-based concepts of Patient Engagement, Activation, and Self-Management.

Developer: Dr. John Wasson, Dartmouth Medical School.

SQAC Priority Areas: Patient-Centered Care.

Measure Evaluation

- **Ease of Measurement:** 0
  Insufficient evidence on how data are collected on the survey, or how they would be collected for a potential quality measure.

- **Reliability and Validity:** 0
  No evidence on single-question survey. On the Patient Activation Measure: Valid and highly reliable survey tool that assesses patient activation and places patients into 1 of 4 stages of activation – long form (22 items) and short form (13 items). No independent assessment of reliability or validity.

- **Field Implementation:** 1
  There is too little evidence available to assess field implementation. It would appear that the efforts to promote patient engagement are still very much in the nascent stages.

- **Amenable to Targeted Improvement:** 1
  Because patient activation can be directly linked to improved outcomes, Hibbard and her coauthors observe, a measurement of patients' level of activation could be adopted as an intermediate measure for ACOs, patient centered medical homes, and other new and emerging delivery and payment structures,. But there is little existing evidence to indicate these measures can be connected to health outcomes or quality improvement generally.

Overall Recommendation

Active Patient Engagement: WEAK

- Average Score: 0.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: N

- Met minimum scores on each evaluation dimension: N
- References

    - Coulter, Angela, and Jo Ellins. "Effectiveness of strategies for informing, educating, and involving patients." BMJ 335: 24-27.
    - Simmons, Leigh Ann, Ruth Q Wolever, Elizabeth M Bechard, and Ralph Snyderman. "Patient engagement as a risk factor in personalized health care: a systematic review of the literature on chronic disease." Genome Medicine 6: n. pg.
    - Mullins, C. Daniel, Abdulla M. Abdulhalim, and Danielle C. Lavallee. "Continuous Patient Engagement in Comparative Effectiveness Research." JAMA 307: 1587-1588. Print.
    - James, Julia. "Patient Engagement. People actively involved in their health and health care tend to have better outcomes—and, some evidence suggests, lower costs." Health Affairs: n. pg.

Proposed Measure: Family Evaluation of Palliative Care

Description: The Family Evaluation of Palliative Care (FEPC) is a post-death survey that captures family members' perceptions about the quality of the palliative care that their loved ones received.

Developer: National Hospice and Palliative Care Organization.

SQAC Priority Areas: End of Life Care.

Measure Evaluation

- **Ease of Measurement:** 1
  Face-to-face survey.

- **Reliability and Validity:** 1
  Each measure meets some but not all of the objectives of measurement in palliative care, and fulfills some but not all of the criteria for validity, reliability, responsiveness and appropriateness, and should evaluate, summarize and collate the situation of terminally ill cancer patients in different palliative care settings.

- **Field Implementation:** 0
  There is not enough evidence that the measure is currently implemented in the field.

- **Amenable to Targeted Improvement:** 0
  There is not enough evidence available in the field and therefore the evaluation results are unavailable.

Overall Recommendation

Family Evaluation of Palliative Care: WEAK

- Average Score: .25
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: N
- Met minimum scores on each evaluation dimension: N
- References
  - Jocham, Hubert R., Theo Dassen, Guy Widdershoven, and Ruud Halfens. "Evaluating Palliative Care—A Review of the Literature." Palliative Care: Research and Treatment 3: 5–12.
  - McWhinney, Ian R, Martin J Bass, and Allan Donner. "Evaluation of a palliative care service: problems and pitfalls." BMJ 309: 1340-1342. Print.
  - Higginson, Irene, Angela Wade, and Mark McCarthy. "Palliative care: views of patients and their families." BMJ 301: 277-281.

Proposed Measure: Patient Safety Composite

Description: A composite measure of potentially preventable adverse events for selected indicators.

Developer: Agency for Healthcare Research and Quality.

SQAC Priority Areas: Patient Safety.

Measure Evaluation

- **Ease of Measurement:** 4
  Measure relies solely on electronic claims.

- **Reliability and Validity:** 3
  There is reasonably strong evidence of reliability for a composite measure; individual components have a SNR of 0.46 to 0.88. Components with higher SNRs contribute more to the composite; additionally, the large denominators contribute to reliability. There is similarly strong evidence for validity overall, though components of the composite raise concerns for internal validity.

- **Field Implementation:** 4
  Public Reporting: CMS Hospital Quality Initiative Outcome Measures; CMS Medicare Hospital Compare Program; AHRQ National Healthcare Quality & Disparities Reports; AHRQ Healthcare Cost and Utilization Project (HCUP); CMS Hospital Value Based Purchasing (HVBP) Program;
  CMS Hospital-Acquired Condition (HAC) Reduction Program.

- **Amenable to Targeted Improvement:** 3
  The occurrence of a PSI event has been shown to be associated with worse clinical outcomes. Patients with an identified PSI event have 2-fold to 3-fold longer hospital stays, 2-fold to 20-fold higher rates of inpatient mortality, and 2-fold to 8-fold higher total hospital charges than patient discharge records without a PSI events(2). PSI composite measure, PSI 90, represents a weighted average of the 11 individual PSIs (of which only 8 PSIs have a non-zero value using NQF weights), representing 11 different potentially preventable patient safety events. The composite measure translates a wealth of information into a more useable form. This information can then be more easily used to compare hospitals, as well as for action and tracking of events throughout the healthcare delivery system.

Overall Recommendation

Patient Safety Composite: STRONG

- Average Score: 3.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 531)
- Met minimum scores on each evaluation dimension: Y
- Reference
    - National Quality Forum. Measure Information - Composite. Patient Safety for Selected Indicators (PSI 90). NQF #0531. February 19, 2014.

Proposed Measure: Pneumonia 30-day mortality rate

Description: The measure estimates a hospital-level risk-standardized mortality rate (RSMR) defined as death for any cause within 30 days of the admission date for the index hospitalization for patients discharged from the hospital with a principal diagnosis of pneumonia. The target population is patients 18 and over. CMS annually reports the measure for patients who are 65 years or older and are either enrolled in fee-for-service (FFS) Medicare and hospitalized in non-federal hospitals or are hospitalized in Veterans Health Administration (VA) facilities.

Developer: Centers for Disease Control and Prevention.

SQAC Priority Areas: CMS Hospital Measures.

Measure Evaluation

- **Ease of Measurement:** 3
  Measure relies primarily on administrative data. Calculation of the measure employs hierarchical logistic regression which requires sufficient computing and technical capabilities.

- **Reliability and Validity:** 3
  Primary review rates evidence for reliability as "moderate". Validity evidence is similarly solid.

- **Field Implementation:** 4
  Public Reporting, Quality Improvement with Benchmarking (external benchmarking to multiple organizations). The measure has been publicly reported on Hospital Compare (www.hospitalcompare.hhs.gov) since June 2008 and is used in CMS' Hospital Inpatient Quality Reporting Program (Formerly RHQDAPU).

- **Amenable to Targeted Improvement:** 3
  Many current hospital interventions are known to decrease the risk of death within 30 days of hospital admission (Jha et. al., 2007). Current process-based performance measures, however, cannot capture all the ways that care within the hospital might influence outcomes. As a result, many stakeholders, including patient organizations, are interested in outcomes measures that allow patients and providers to assess relative outcomes performance for hospitals (Bratzler et al., 2007).

Overall Recommendation

Pneumonia 30-day mortality rate: STRONG

- Average Score: 3.25

- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 468)
- Met minimum scores on each evaluation dimension: Y
- References
    - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following pneumonia hospitalization. NQF #0468. March 9, 2007.
    - National Quality Measures Clearinghouse. Measure Summary NQMC- 8843. Pneumonia: hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following pneumonia hospitalization. Agency for Healthcare Research and Quality. January 2013.

Proposed Measure: Heart failure 30-day mortality rate

Description: The measure estimates a hospital 30-day risk-standardized mortality rate (RSMR). Mortality is defined as death for any cause within 30 days after the date of admission of the index admission, for patients 18 and older discharged from the hospital with a principal diagnosis of heart failure (HF). CMS annually reports the measure for patients who are 65 years or older and are either enrolled in fee-for-service (FFS) Medicare and hospitalized in non-federal hospitals or are hospitalized in Veterans Health Administration (VA) facilities.

Developer: Centers for Disease Control and Prevention.

SQAC Priority Areas: CMS Hospital Measures.

Measure Evaluation

- **Ease of Measurement:** 3
  Measure relies primarily on administrative data. Calculation of the measure employs hierarchical logistic regression which requires sufficient computing and technical capabilities.

- **Reliability and Validity:** 3
  The reliability of the model was tested by randomly selecting 50% of Medicare FFS patients aged 65+ in the initial one-year cohort and developing a risk-adjusted model for this group; researchers then developed a second model for the remaining 50% of patients. For medical-record validation: a medical record measure was used to compare with the administrative measure at the state level.

- **Field Implementation:** 4
  The measure has been publicly reported on Hospital Compare (www.hospitalcompare.hhs.gov) since June 2007 and is used in CMS's Hospital Inpatient Quality Reporting Program

- **Amenable to Targeted Improvement:** 3
  The goal of this measure is to improve patient outcomes by providing patients, physicians, and hospitals with information about hospital-level, risk-standardized mortality rates following hospitalization for heart failure. The goal is to directly affect patient outcomes by measuring risk-standardized rates of mortality. The measure has the potential for high impact: it affects large numbers, is a leading cause of morbidity/mortality among adults, and is associated with high resource use.

Overall Recommendation

Heart failure 30-day mortality rate: STRONG

- Average Score: 3.25
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 229)
- Met minimum scores on each evaluation dimension: Y
- References
    - National Quality Form. Measure Evaluation 4.1. Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following heart failure (HF) hospitalization for patients 18 and older. NQF #0229. December 2009.
    - National Quality Measures Clearinghouse. Measure Summary NQMC-8842. Heart failure (HF): hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following HF hospitalization. Agency for Healthcare Research and Quality. January 2013.

Proposed Measure: AMI 30-day mortality rate

Description: The measure estimates a hospital 30-day risk-standardized mortality rate (RSMR), defined as death for any cause within 30 days after the date of admission of the index admission, for patients 18 and older discharged from the hospital with a principal diagnosis of acute myocardial infarction (AMI). CMS annually reports the measure for patients who are 65 years or older and are either enrolled in fee-for-service (FFS) Medicare and hospitalized in non-federal hospitals or are hospitalized in Veterans Health Administration (VA) facilities.

Developer: Centers for Disease Control and Prevention.

SQAC Priority Areas: CMS Hospital Measures.

Measure Evaluation

- **Ease of Measurement:** 3
  Measure relies primarily on administrative data. Calculation of the measure employs hierarchical logistic regression which requires sufficient computing and technical capabilities.

- **Reliability and Validity:** 3
  Reliability testing demonstrates that the results are repeatable, producing the same results a high proportion of the time. Validity testing demonstrates that the measure reflects the quality of care provided adequately distinguishing good and poor quality.

- **Field Implementation:** 4
  The measure has been publicly reported on Hospital Compare (www.hospitalcompare.hhs.gov) since June 2007 and is used in CMS's Hospital Inpatient Quality Reporting Program

- **Amenable to Targeted Improvement:** 3
  This mortality measure was developed to identify institutions whose performance is better or worse than would be expected based on their patient case-mix, and therefore promote hospital quality improvement and better inform consumers about care quality. Also, substantial variation across the nation; this continued variation in performance suggests continued opportunities for improvements.

Overall Recommendation

AMI 30-day mortality rate: STRONG

- Average Score: 3.25
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 230)

- Met minimum scores on each evaluation dimension: Y
- References
    - National Quality Forum. Measure Evaluation 4.1. Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following acute myocardial infarction (AMI) hospitalization for patients 18 and older, NQF #0230. April 2011.
    - National Quality Measures Clearinghouse. Measure SummaryNQMC-8841. Acute myocardial infarction (AMI): hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following AMI hospitalization. Agency for Healthcare Research and Quality. January 2013.

Proposed Measure: Hospital-onset methicillin-resistant staphylococcus bacteremia aureus (MRSA)

Description: Standardized infection ratio (SIR) of hospital-onset unique blood source MRSA Laboratory-identified events (LabID events) among all inpatients in the facility.

Developer: Centers for Disease Control and Prevention.

SQAC Priority Areas: Patient Safety.

Measure Evaluation

- **Ease of Measurement:** 4
  All data collected electronically. A module for calculating the measure is readily available from NHSN.

- **Reliability and Validity:** 3
  Primary review rates evidence for reliability as "moderate". Validity evidence is similarly solid.

- **Field Implementation:** 3
  Hospital-onset MRSA bacteremia has been added to the Center for Medicare and Medicaid Services´ Hospital Inpatient Quality Reporting (IQR) Program for events identified starting in January 2013. Facilities that are eligible for the IQR program that do not participate and report required data have their Medicare annual payment update reduced. The SIR will be used for the hospital-onset MRSA bacteremia reporting requirement in the IQR program.

- **Amenable to Targeted Improvement:** 3
  MDROs, including MRSA, have been shown to be associated with increased mortality, length of stay, and cost. The measure can then be used to drive prevention practices that will lead to improved outcomes, including the reduction of patient morbidity and mortality.

Overall Recommendation

Hospital-onset methicillin resistant staphylococcus bacteremia aureus (MRSA): STRONG

- Average Score: 3.25
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1716)
- Met minimum scores on each evaluation dimension: Y
- Reference
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia Outcome Measure. NQF #1716. September 14, 2011.

Proposed Measure: Central-Line Associated Bloodstream Infection

Description: Standardized Infection Ratio (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) will be calculated among patients in the following patient care locations: Intensive Care Units (ICUs) Specialty Care Areas (SCAs) - adult and pediatric: long term acute care, bone marrow transplant, acute dialysis, hematology/oncology, and solid organ transplant locations other inpatient locations. (Data from these locations are reported from acute care general hospitals (including specialty hospitals), freestanding long term acute care hospitals, rehabilitation hospitals, and behavioral health hospitals. This scope of coverage includes but is not limited to all Inpatient Rehabilitation Facilities (IRFs), both freestanding and located as a separate unit within an acute care general hospital. Only locations where patients reside overnight are included, i.e., inpatient locations.

Developer: Centers for Disease Control and Prevention.

SQAC Priority Areas: Patient Safety.

Measure Evaluation

- **Ease of Measurement:** 2
  Data Source: Electronic Clinical Data - Electronic Health Record, Laboratory, Other, and Paper Medical Records.

- **Reliability and Validity:** 3
  Primary review rates evidence for reliability as "moderate". Validity evidence is similarly solid.

- **Field Implementation:** 4
  Current uses: Public Reporting; Hospital Inpatient Quality Reporting Program; The Prospective Payment System (PPS)-Exempt; PPS-Exempt Cancer Hospital Quality Reporting; (PCHQR) Program.

- **Amenable to Targeted Improvement:** 3
  CLABSI can be minimized through proper management of the central line. Efforts to improve central line insertion and maintenance practices, with early discontinuance of lines are recommended. These efforts result in decreased morbidity and mortality and reduced healthcare costs. Use of this measure to track CLABSIs through a nationalized standard for HAI monitoring, leads to improved patient outcomes and provides a mechanism for identifying improvements and evaluating prevention efforts.

Overall Recommendation

Central-Line Associated Bloodstream Infection: GOOD

- Average Score: 3
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 139)
- Met minimum scores on each evaluation dimension: Y
- Reference
    - National Quality Forum. Measure Information. National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure. NQF #0139. February 19, 2014.

Proposed Measure: Hospital-onset *C. difficile*

Description: Standardized infection ratio (SIR) of hospital-onset CDI Laboratory-identified events (LabID events) among all inpatients in the facility, excluding well-baby nurseries and neonatal intensive care units (NICUs).

Developer: Centers for Disease Control and Prevention.

SQAC Priority Areas: Patient Safety

Measure Evaluation

- **Ease of Measurement:** 2
  Moderate evidence. Measure is in transition to use of electronic admin data.. A module for calculating the measure is readily available from NHSN.

- **Reliability and Validity:** 3
  Primary review rates reliability as "moderate". Validity evidence is similarly solid.

- **Field Implementation:** 4
  Widely implemented. Care Setting: Behavioral Health/Psychiatric, Inpatient, Dialysis Facility, Hospital/Acute Care Facility, Post-Acute/Long Term Care Facility, Nursing Home/Skilled Nursing Facility, Post-Acute/Long Term Care Facility, Rehabilitation

- **Amenable to Targeted Improvement:** 3
  The SIR compares a healthcare facility´s performance compared to a national baseline. Facilities are able to see whether the number of reported hospital-onset C. difficile LabID events compares to the number that would be expected, given national data. The measure can then be used to drive prevention practices that will lead to improved outcomes, including the reduction of patient morbidity and mortality.

Overall Recommendation

Hospital-onset C. difficile: GOOD

- Average Score: 3
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1717)
- Met minimum scores on each evaluation dimension: Y
- References
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure. NQF #1717. September 14, 2011.

- Campbell, Robert J., Lynn Giljahn, Kim Machesky, Forrest W. Smith, and Clifford McDonald. "Clostridium difficile Infection in Ohio Hospitals and Nursing Homes During 2006." Infection Control and Hospital Epidemiology 30: 526-533.

Proposed Measure: Catheter-Associated Urinary Tract Infections

Description: Standardized Infection Ratio (SIR) of healthcare-associated, catheter-associated urinary tract infections (CAUTI) will be calculated among patients in the following patient care locations: • Intensive Care Units (ICUs) (excluding patients in neonatal ICUs [NICUs: Level II/III and Level III nurseries]) Specialty Care Areas (SCAs) - adult and pediatric: long term acute care, bone marrow transplant, acute dialysis, hematology/oncology, and solid organ transplant locations other inpatient locations (excluding Level I and Level II nurseries). Data from these locations are reported from acute care general hospitals (including specialty hospitals), freestanding long term acute care hospitals, rehabilitation hospitals, and behavioral health hospitals. This scope of coverage includes but is not limited to all Inpatient Rehabilitation Facilities (IRFs), both freestanding and located as a separate unit within an acute care general hospital. Only locations where patients reside overnight are included, i.e., inpatient locations.

Developer: Centers for Disease Control and Prevention.

SQAC Priority Areas: Patient Safety.

Measure Evaluation

- **Ease of Measurement:** 2
  Data Source: Electronic Clinical Data - Electronic Health Record, Laboratory, and Paper Medical Records.

- **Reliability and Validity:** 2
  Patient medical records and other sources of patient data must be reviewed to determine if the patient meets the necessary criteria for a healthcare-associated CAUTI. It is possible that reviewers may miss symptoms or fail to identify that patients meet criteria thereby under-reporting CAUTI events. Data collectors might also intentionally under-report CAUTIs. Both of these actions would result in an SIR that is calculated to be lower than actual. Alternatively, patients may be identified as having a CAUTI when in fact they do not meet CAUTI criteria and thereby calculate an SIR that is higher than actual. In addition, it is possible SIRs may be miscalculated. The NHSN reporting tool includes business logic to minimize misclassification of CAUTI and inaccurate reporting of catheter days and the NHSN system generates SIR rates automatically, reducing the possibility of manual error in SIR calculation. In addition, site visits can be conducted to audit data validity and this has been done for other infection types by some of the states using NHSN as their mandatory reporting tool.

- **Field Implementation:** 4
  Substantial evidence of widespread implementation, including: Public Reporting, Hospital Inpatient Quality Reporting Program, The Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting (PCHQR) Program, Public Health Surveillance, and

Quality Improvement with Benchmarking (external benchmarking to multiple organizations) On the CUSP Stop CAUTI.

- **Amenable to Targeted Improvement:** 3
  CAUTI can be minimized by a collection of prevention efforts. These include reducing the number of unnecessary indwelling catheters inserted, removing indwelling catheters at the earliest possible time, securing catheters to the patient´s leg to avoid bladder and urethral trauma, keeping the urine collection bag below the level of the bladder, and utilizing aseptic technique for urinary catheter insertion. These efforts will result in decreased morbidity and mortality and reduce healthcare costs. Use of this measure to track CAUTIs through a nationalized standard for HAI monitoring, leads to improved patient outcomes and provides a mechanism for identifying improvements and quality efforts.

Overall Recommendation

Catheter-Associated Urinary Tract Infections: GOOD

- Average Score: 2.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 138)
- Met minimum scores on each evaluation dimension: Y
- References
  - National Quality Forum. Measure Information. National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure. NQF #0138. February 19, 2014.
  - Hooton, Thomas M., Suzanne F. Bradley, Diana D. Cardenas, Richard Colgan, Suzanne E. Geerlings, James C. Rice, Sanjay Saint, Anthony J. Schaeffer, Paul A. Tambayh, Peter Tenke, and Lindsay E. Nicolle. "Diagnosis, Prevention, and Treatment of Catheter- Associated Urinary Tract Infection in Adults: 2009 International Clinical Practice Guidelines from the Infectious Diseases Society of America." Clinical Infectious Diseases 50: 625–663.
  - Chu, Christine M., and Lily A. Arya. "Prevention of Catheter-Associated Urinary Tract Infection Following Gynaecologic Surgery: A Systematic Review." European Medical Journal 1: 66-73.

Proposed Measure: SSI Surgical Site Infection

Description: Prototype measure for the facility adjusted Standardized Infection Ratio (SIR) of deep incisional and organ/space Surgical Site Infections (SSI) at the primary incision site among adult patients aged >= 18 years as reported through the ACS National Surgical Quality Improvement Program (ACS-NSQIP) or CDC National Health and Safety Network (NHSN). Prototype also includes a systematic, retrospective sampling of operative procedures in healthcare facilities. This prototype measure is intended for time-limited use and is proposed as a first step toward a more comprehensive SSI measure or set of SSI measures that include additional surgical procedure categories and expanded SSI risk-adjustment by procedure type. This single prototype measure is applied to two operative procedures, colon surgeries and abdominal hysterectomies, and the measure yields separate SIRs for each procedure.

Developer: Centers for Disease Control and Prevention.

SQAC Priority Areas: Patient Safety.

Measure Evaluation

- **Ease of Measurement:** 2
  Data Source: Electronic Clinical Data - Electronic Health Record, Laboratory, Other, and Paper Medical Records.

- **Reliability and Validity:** 2
  Several factors cast doubt on reliability and validity, including complex data calculations, multiple data sources and risks associated with the data collection process, and low rates of incidence in the denominator. Several state and national assessments indicate initial reliability and validity, but more research is underway.

- **Field Implementation:** 4
  SSI rates and SIR using the methodologies described above have been in use by hospitals participating in CDC surveillance systems since 1986, and the rate measure has been endorsed by NQF in a previous measure set since 2007. Risk models for specific operative procedure categories have been developed using aggregate data from over 805 facilities in order to better reflect factors influencing the development of SSI in different patient populations. SIR has proven to be a useful metric for summarizing HAI experience especially when sample sizes within strata are small and when a summary statistic is desired.

- **Amenable to Targeted Improvement:** 2
  It is envisioned the use of this measure will promote SSI prevention activities which will lead to improved patient outcomes including reduction of avoidable medical costs, and patient morbidity and mortality. Affects large numbers, frequently performed procedure, A leading cause of morbidity/mortality, High resource use, Severity of illness, Patient/societal

consequences of poor quality improved patient outcomes and provides a mechanism for identifying improvements and quality efforts.

Overall Recommendation

SSI Surgical Site Infection: SSI colon, SSI-abdominal hysterectomy: GOOD

- Average Score: 2.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 753)
- Met minimum scores on each evaluation dimension: Y
- Reference
    - National Quality Forum. Measure Information. American College of Surgeons – Centers for Disease Control and Prevention (ACS-CDC) Harmonized Procedure Specific Surgical Site Infection (SSI) Outcome Measure. NQF #0753. July 24, 2013.

Proposed Measure (Leapfrog): Abdominal Aortic Aneurysm Repair

Description: A reliability-adjusted measure of Abdominal Aortic Aneurysm Repair (AAA) performance that optimally combines two important domains: AAA hospital volume and AAA operative mortality, to provide predictions on hospital AAA survival rates in patients age 18 and over.

Developer: Leapfrog Group.

SQAC Priority Areas: Leapfrog.

Measure Evaluation

- **Ease of Measurement:** 3
  Data Source: Electronic administrative data/claims.

- **Reliability and Validity:** 1
  Risk adjustment for patient characteristics is not used because in sensitivity analysis, composite measures based on an unadjusted mortality input and a risk-adjusted mortality input had a correlation of (.95) and thus were equally good at predicting future. More information about validity is needed.

- **Field Implementation:** 0
  Little to no information provided regarding current uses/field implementation. The importance and implications of RAAA remain largely unacknowledged by the medical establishment.

- **Amenable to Targeted Improvement:** 1
  There is evidence that state the measure is necessary but not much literature on implementation of the intervention in relation to performance of the measure.

Overall Recommendation

Abdominal Aortic Aneurysm Repair: WEAK

- Average Score: 1.25
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 0736)
- Met minimum scores on each evaluation dimension: Y
- References
  - National Quality Forum. Table of Similar, or Competing Measures and those with potential for Harmonization. Website: http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=69415. Accessed on July 3, 2014.

- Brown, M. J., A. J. Sutton, P. R. F. Bell, and R. D. Sayers. "A Meta-Analysis of 50 Years of Ruptured Abdominal Aortic Aneurysm Repair." British Journal of Surgery 89: 714-730.

Proposed Measure (Leapfrog): Aortic Valve Replacement

Description: Percent of patients aged 18 years and older undergoing Aortic Valve Replacement (AVR) who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

Developer: The Society of Thoracic Surgeons.

SQAC Priority Areas: Leapfrog.

Measure Evaluation

- **Ease of Measurement:** 2
  Data Source: Electronic Clinical Data: Registry. Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry). There are no direct costs to collect the data for this measure.

- **Reliability and Validity:** 3
  Reliability testing method: Compared results between two proximate time periods with one-year overlap: January 2005-December 2007 and January 2007-December 2009. Testing results: $\rho = 0.44$. Validity testing results: Mortality Operative Death: 100% agreement rate.

- **Field Implementation:** 1
  Currently being considered for NQF endorsement, the STS CABG Composite Score is a multidimensional performance measure comprised of four domains consisting of 11 individual NQF-endorsed cardiac surgery metrics. STS will begin developing composite measures to be used for public reporting for AVR, AVR+CABG, MV Repair, MV Repair + CABG, MV Replacement, and MV Replacement + CABG surgeries. STS's plan is to develop one composite per year beginning with AVR (and continuing in the order listed). Care Settings: Hospital/Acute Care Facility. As a result, this particular measure will likely be more widely used.

- **Amenable to Targeted Improvement:** 3
  The literature suggests that measuring the mortality rate for those who undergo AVR adds significant value. This measure allows one to evaluate the risk associated with a given procedure for various patient characteristics, and more importantly, aggressively search for ways to minimize that risk.

Overall Recommendation

Aortic Valve Replacement: MODERATE

- Average Score: 2.25
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 0120)
- Met minimum scores on each evaluation dimension: Y
- Reference
    - National Quality Forum. Measure Evaluation 4.1. Risk-Adjusted Operative Mortality for Aortic Valve Replacement (AVR). NQF #0120: December 2009.

Proposed Measure (Leapfrog): Esophagectomy

Description: A reliability-adjusted measure of Esophagectomy surgical performance that optimally combines two important domains: Esophagectomy hospital volume and Esophagectomy operative mortality, to provide predictions on hospital Esophagectomy survival rates in patients age 18 and over.

Developer: Leapfrog Group.

SQAC Priority Areas: Leapfrog.

Measure Evaluation

- **Ease of Measurement:** 3
  Medical records and administrative data.

- **Reliability and Validity:** 1
  Minimal information was provided regarding the measure's reliability & validity. The observed mortality rate is weighted according to how reliably it is estimated, with the remaining weight placed on the information regarding hospital volume [volume-predicted mortality]. The volume-predicted mortality rate reflects the hospital's experience performing Esophagectomy surgeries (thus, it includes all Esophagectomy surgeries) and uses mortality for all hospitals at that specific volume to create the volume predicted mortality.

- **Field Implementation:** 1
  Lack of evidence that demonstrates the measure has been implemented.

- **Amenable to Targeted Improvement:** 2
  Although the literature has demonstrated that the measure is useful for identifying Esophagectomy surgical performance, there is less evidence that the measure is connected to or can assist in improvement.

Overall Recommendation

Esophagectomy: WEAK

- Average Score: 1.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 0737)
- Met minimum scores on each evaluation dimension: Y
- References

- National Quality Forum. Related and Competing Measures. Website: <-Related-and-Competing-Measures_4-26-2011%20(1).pdf>. Accessed on July 3, 2014.
- McLoughlin, James M., James M. Lewis, and Kenneth L. Meredith. "The Impact of Age on Morbidity and Mortality Following Esophagectomy for Esophageal Cancer." Cancer Control 20: 144-150.

Proposed Measure (Leapfrog): High-risk Newborn Deliveries (PC-03)

Description: Patients at risk of preterm delivery at >=24 and <32 weeks gestation receiving antenatal steroids prior to delivering preterm newborns.

Developer: Providence St Vincent's Hospital/Council of Women and Infant's Specialty Hospitals; The Joint Commission.

SQAC Priority Areas: Leapfrog.

Measure Evaluation

- **Ease of Measurement:** 2
  Data Source: Electronic Clinical Data, Registry, and Paper Records.

- **Reliability and Validity:** 3
  This measure was adapted from NQF-endorsed measure 0476 Appropriate Use of Antenatal Steroids. As such, initial data reliability would have been addressed during the original endorsement. Since the measure has been in national use, continued face validity of the measure has been determined through analysis of feedback from measure users. Good evidence to support the reliability and validity of this measure.

- **Field Implementation:** 4
  Current Use: Public Reporting, Regulatory and Accreditation Programs, Quality Improvement with Benchmarking (external benchmarking to multiple organizations), Quality Improvement (Internal to the specific organization). The PC measure set has been in national use since the 2nd quarter of 2010.

- **Amenable to Targeted Improvement:** 3
  The literature suggests interventions in Antenatal corticosteroid therapy for women at risk of premature delivery will result in a substantial decrease in neonatal morbidity and mortality, as well as substantial savings in health care costs. The use of antenatal corticosteroids for fetal maturation is a rare example of a technology that yields substantial cost savings in addition to improving health. The Royal College of Obstetricians and Gynaecologists (RCOG) calculated that in increase in use from 15% to 60% in babies of less than 2000 GM born in the US would result in an annual savings of $157 million. The measure will assist health care organizations (HCOs) to track evidence of an increase in the appropriate use of antenatal steroids prior to preterm deliveries.

Overall Recommendation

High-risk Newborn Deliveries: GOOD

- Average Score: 3
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 0476)
- Met minimum scores on each evaluation dimension: Y
- References
    - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. PC-03 Antenatal Steroids. NQF #0476: October 24, 2008.
    - "Measure Information Form". Joint Commission National Quality Measure, 1 Jan. 2013. Web. 3 July 2014.

Proposed Measure (Leapfrog): Incidence of Episiotomy

Description: Percentage of vaginal deliveries (excluding those coded with shoulder dystocia) during which an episiotomy is performed.

Developer: Christiana Care Health System.

SQAC Priority Areas: Leapfrog.

Measure Evaluation

- **Ease of Measurement:** 3
  Data Source: Administrative claims, Paper Records. Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims). ALL data elements in electronic claims.

- **Reliability and Validity:** 2
  The evidence is mixed. For Period 1, 7 of 9 responding hospitals (63.4%) confirmed the coding on the sample episiotomy cases matched exactly with the medical record. One hospital had a discrepancy of 1 case and the second hospital did not indicate the degree of discrepancy. 8 of 9 (89%) indicated they felt the administrative data set was a consistent and reliable source of episiotomy data. In period 2, 9 of 11 hospitals (81.8%) indicated they felt episiotomy rate is a valid measure of the quality of care at a hospital; the other 2 felt the measure was valid but should be viewed at the provider level since providers will determine whether to perform an episiotomy or not. For Period 2, 11 hospitals responded; 4 of the 11 (36.6%) found all cases, with and without episiotomies to be correctly coded. The remaining 7 found 1-4 cases with codes not matching documentation, evenly split between those with and without episiotomies.

- **Field Implementation:** 4
  Current Use: Public Reporting, Quality Improvement with Benchmarking (external benchmarking to multiple organizations), Quality Improvement (Internal to the specific organization). This measure has been previously used with a time limited endorsement. Public reporting was not required and therefore information does not exist. This is a currently endorsed NQF measure so we suspect some systems/collaboratives are reporting this measure across their participating hospitals.

- **Amenable to Targeted Improvement:** 1
  There is evidence that state the measure is necessary but not much literature on implementation of the intervention in relation to performance of the measure.

Overall Recommendation

Incidence of Episiotomy: GOOD

- Average Score: 2.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 0470)
- Met minimum scores on each evaluation dimension: Y
- Reference
    - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Incidence of Episiotomy. NQF #0470. October 24, 2008.

Proposed Measure (Leapfrog): Newborn Bilirubin Screening & DVT Prophylaxis in Women Undergoing Cesarean Section

Description: Measure adherence to current ACOG, SMFM recommendations for use of DVT prophylaxis in women undergoing cesarean delivery. Current ACOG and SMFM recommendations call for the use of pneumatic compression devices in all women undergoing cesarean delivery who are not already receiving medical VTE prophylaxis.

Developer: Hospital Corporation of America.

SQAC Priority Areas: Leapfrog.

Measure Evaluation

- **Ease of Measurement:** 3
  Data Source: Electronic Clinical Data: Electronic Health Record, Pharmacy, and Paper Records. Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims). Some data elements are in electronic sources.

- **Reliability and Validity:** 4
  Strong evidence the measure is reliable and valid. Retrospective audit suggests current collection methodology to be nearly 100% reliable. Near 100% concordance with internally reported metrics.

- **Field Implementation:** 2
  Current Use: Quality Improvement (Internal to the specific organization). Public reporting hampered on initial submission by lack of supportive ACOG guidelines.

- **Amenable to Targeted Improvement:** 2
  The literature suggests the measure promotes improvement but is too new to prove a direct correlation. PCD use has been shown to reduce the incidence of PE in the general population of patients undergoing major surgery by about 70%. Until this month (Sept 2011) the use of these devices has not been standard in U.S. hospitals.

Overall Recommendation

Newborn Bilirubin Screening & DVT Prophylaxis in Women Undergoing Cesarean Section: GOOD

- Average Score: 2.75
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 0473)
- Met minimum scores on each evaluation dimension: Y
- Reference

- National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Appropriate DVT prophylaxis in women undergoing cesarean delivery. NQF #0473. October 24, 2008.

Proposed Measure (Leapfrog): Pancreatic Resection

Description: A reliability adjusted measure of pancreatic resection surgical performance that optimally combines two important domains: Pancreatic resection hospital volume and pancreatic operative mortality, to provide predictions on hospital pancreatic survival rates in patients age 18 and over.

Developer: Leapfrog Group.

SQAC Priority Areas: The Leapfrog.

Measure Evaluation

- **Ease of Measurement:** 3
  Data Source: Administrative data.

- **Reliability and Validity:** 2
  Each potential quality indicator was evaluated against the following six criteria, which were considered essential for determining the reliability and validity of a quality indicator: face validity, precision, minimum bias, construct validity, fosters real quality improvement, and application. Pancreatic resection is measured accurately with discharge data. Most facilities perform 10 or fewer pancreatectomies for cancer during a 5year period; therefore, this indicator is expected to have poor precision.

- **Field Implementation:** 3
  Current Use: External oversight/State government program, Internal quality improvement, Quality of care research. Pancreatic cancer surgical volume has not been widely used as an indicator of quality.

- **Amenable to Targeted Improvement:** 2
  Although the literature has demonstrated that the measure is useful for identifying pancreatic resection volume and mortality, there is less evidence that the measure is connected to or can assist in improvement.

Overall Recommendation

Pancreatic Resection: GOOD

- Average Score: 2.5
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 0738)
- Met minimum scores on each evaluation dimension: Y
- References

- National Quality Measures Clearinghouse | Print: Pancreatic resection: volume." National Quality Measures Clearinghouse | Print: Pancreatic resection: volume. N.p., n.d. Web. 3 July 2014. <http://www.qualitymeasures.ahrq.gov/popups/printView.aspx?id=15342>.
- Bachman, Jeannine, Christoph W. Michalski, Marc E. Martignoni, Markus W. Buchler, and Helmut Friess. "Pancreatic Resection for Pancreatic Cancer." HPB 8: 346-351.