Purpose of the Project

Cancer – defined by the National Institutes of Health as a group of more than 100 diseases characterized by uncontrolled cellular growth, proliferation, and spread – has an enormous impact on the United States. The American Cancer Society has estimated that cancer was responsible for close to 570,000 deaths among adult and children in 2010, and that half of all men and more than one-third of all women will develop cancer at some point in their lifetimes. As the second leading cause of death in the country, cancer costs the United States an estimated $263.8 billion annually in direct medical costs and loss of productivity.[1]

Despite enormous focus on prevention and treatment of cancer, inconsistencies in care exist, with many patients not receiving care that follows clinical practice guidelines.[2] Studies have also shown significant socioeconomic disparities in treatment and survival for many different types of cancers, such as gastric, breast, prostate, and lung cancers.[3,4,5,6] These discrepancies in care can occur for a variety of reasons. Patients often face complex, individualized treatment regimens involving multiple providers and settings of care. Providers face an ever-evolving evidence base for treatment – often disagreeing over what optimal care looks like – and can be limited in their treatment options based on personnel capabilities or access to technologies. When looked at together, these factors illustrate a great opportunity for improving cancer treatment across the spectrum of care. Performance measures are critical to this improvement.

NQF has previously endorsed performance measures related to the diagnosis and treatment of various cancers, including breast, lung, prostate, and colon cancer, as well as melanoma and leukemia. In October 2011, NQF – at the request of the Department of Health and Human Services – began a two-phase project focused on identifying, endorsing, and updating a broader set of cancer care performance measures. Specifically, the project sought to endorse measures that focused on hematology and melanoma; oncology; prostate and lung cancers; breast and colon cancers; and palliative care concerns.

The resulting endorsed measures will help ensure individuals with cancer receive the high-quality care they deserve.

What Was Endorsed

Summary of Cancer Endorsement Maintenance Phases 1 and 2 Measures Project

	Maintenance	New	Total
Measure submitted for consideration	38	10	48
Measures withdrawn from consideration	4	0	4
Measures recommended for endorsement	28	10	38
Measures not recommended for endorsement	6	0	6

Under two phases of the cancer endorsement project, NQF endorsed 38 measures suitable for accountability and quality improvement. Of the 38 measures, 28 were previously endorsed and granted continued endorsement status, and 10 were newly submitted measures.

Measure stewards included a range of healthcare stakeholders, including the Commission on Cancer at the American College of Surgeons; the Physician Consortium

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for Performance Improvement, convened by the American Medical Association; the College of American Pathologists; the American Society of Clinical Oncology; and the Society of Thoracic Surgeons. A full list of measures is available at the end of this report.

The Need these Measures Fill

This project sought to identify and endorse measures that address cancer diagnosis and treatment for accountability and quality improvement. The resulting measures will be critical to quality improvement efforts within the cancer field, and focus on a range of care concerns, including adjuvant chemotherapy use in colon cancer patients; radiation use in newly diagnosed breast cancer patients who have undergone breast conserving surgery; documented care plans for chemotherapy or radiation patients dealing with pain; and hospice admission and readmission rates for cancer patients.

Potential Use

These measures are applicable for use in a range of clinical settings and providers, which will help improve quality across the healthcare spectrum. Settings include acute care hospitals, outpatient facilities, and hospices.

Project Perspectives

Given the widespread impact – both emotional and financial – that cancer continues to take on individuals across the United States, ensuring patients receive high-quality and compassionate care throughout diagnosis and treatment is more important than ever. These quality measures will give the healthcare community more tools they need to measure, report on, and ultimately improve cancer care.

In their endorsement deliberations, NQF volunteer expert steering committee members identified areas where measures are still needed, or could be harmonized to streamline reporting efforts. Specifically, gaps in measurement include:

- **Disease-specific measures**, such as PSA screenings for prostate cancer patients, and targeted therapies for kidney and lung cancer.

- **Appropriateness of care measures**, such as enrollment of patients in clinical trials, and patient access to high-quality hospice care facilities.

- **Patient-outcome measures**, such as survival rates reported by stage for cancers of the lung, pancreas, liver, colon, breast, and thyroid.

- **Next generation measures**, such as patient adherence to medication and therapies, including oral chemotherapy.

- **Quality of care measures**, such as the quality of laboratory reports and methodologies, and the value and effectiveness of surgical, radiation, and medical therapies over the course of treatment.

- **Unique patient population measures**, including measures addressing pediatric cancer patients, and disparities stratified by race/ethnicity, gender, and language.

The steering committee also recommended that measure #0383 – focused on documented care plans for patients undergoing chemotherapy – be harmonized with existing endorsed measures (#1628 and 1634) that address pain screening in advanced cancer patients at outpatient facilities and hospice and palliative settings. Harmonizing these measures would help reduce reporting burden on providers.

Endorsed Measures

HEMATOLOGY AND MELANOMA

0377: Myelodysplastic Syndrome (MDS) and Acute Leukemias – Baseline Cytogenetic Testing Performed on Bone Marrow (AMA-PCPI)

Description: Percentage of patients aged 18 years and older with a diagnosis of MDS or an acute leukemia who had baseline cytogenic testing performed on bone marrow.

0378: Documentation of Iron Stores in Patients Receiving Erythropoietin Therapy (AMA-PCPI)

Description: Percentage of patients aged 18 years and older with a diagnosis of MDS who are receiving erythropoietin therapy with documentation of iron stores within 60 days prior to initiating erythropoietin therapy.

0379: Chronic Lymphocytic Leukemia (CLL) – Baseline Flow Cytometry (AMA-PCPI)

Description: Percentage of patients aged 18 years and older with a diagnosis of CLL who had baseline flow cytometry studies performed.

0380: Multiple Myeloma – Treatment with Bisphosphonates (AMA-PCPI)

Description: Percentage of patients aged 18 years and older with a diagnosis of multiple myeloma, not in remission, who were prescribed or received intravenous bisphosphonates within the 12 month reporting period.

0562: Overutilization of Imaging Studies in Melanoma (AMA-PCPI)

Description: Percentage of patients, regardless of age, with a current diagnosis of stage 0 through IIC melanoma or a history of melanoma of any stage, without signs or symptoms suggesting systemic spread, seen for an office visit during the one-year measurement period, for whom no diagnostic imaging studies were ordered.

0650: Melanoma Continuity of Care – Recall System (AMA-PCPI)

Description: Percentage of patients, regardless of age, with a current diagnosis of melanoma or a history of melanoma whose information was entered, at least once within a 12 month reporting period into a recall system that includes:

- A target date for the next complete physical skin exam , AND

- A process to follow up with patients who either did not make an appointment within the specified timeframe or who missed a scheduled appointment.

ONCOLOGY

0381: Oncology: Treatment Summary Communication – Radiation Oncology (AMA-PCPI)

Description: Percentage of patients, regardless of age, with a diagnosis of cancer who have undergone brachytherapy or external beam radiation therapy who have a treatment summary report in the chart that was communicated to the physician(s) providing continuing care and to the patient within one month of completing treatment.

0382: Oncology: Radiation Dose Limits to Normal Tissues (AMA-PCPI)

Description: Percentage of patients, regardless of age, with a diagnosis of pancreatic or lung cancer who receive 3D conformal radiation therapy with documentation in medical record that radiation dose limits to normal tissues were established prior to the initiation of a course of 3D conformal radiation for a minimum of two tissues.

0383: Oncology: Plan of Care for Pain – Medical Oncology and Radiation Oncology (paired with 0384) (AMA-PCPI) (paired with 0384)

Description: Percentage of visits for patients, regardless of age, with a diagnosis of cancer currently receiving chemotherapy or radiation therapy who report having pain with a documented plan of care to address pain.

0384: Oncology: Pain Intensity Quantified – Medical Oncology and Radiation Oncology (paired with 0383) (AMA-PCPI) (paired with 0383)

Description: Percentage of visits for patients, regardless of age, with a diagnosis of cancer currently receiving chemotherapy or radiation therapy in which pain intensity is quantified.

0386: Oncology: Cancer Stage Documented (AMA-PCPI)

Description: Percentage of patients, regardless of age, with a diagnosis of breast, colon, or rectal cancer who are seen in the ambulatory setting who have a baseline AJCC cancer stage or documentation that the cancer is metastatic in the medical record at least once during the 12 month reporting period.

1854: Barrett´s Esophagus (College of American Pathologists) (new, time-limited)

Description: Percentage of patients with esophageal biopsy reports for Barrett's esophagus that contain a statement about dysplasia.

PROSTATE AND LUNG

0389: Prostate Cancer: Avoidance of Overuse Measure – Bone Scan for Staging Low-Risk Patients (AMA-PCPI)

Description: Percentage of patients, regardless of age, with a diagnosis of prostate cancer, at low

risk of recurrence, receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy who did not have a bone scan performed at any time since diagnosis of prostate cancer.

0390: Prostate Cancer: Adjuvant Hormonal Therapy for High-Risk Patients (AMA-PCPI)

Description: Percentage of patients, regardless of age, with a diagnosis of prostate cancer, at high risk of recurrence, receiving external beam radiotherapy to the prostate who were prescribed adjuvant hormonal therapy (GnRH agonist or antagonist).

1790: Risk-Adjusted Morbidity and Mortality for Lung Resection for Lung Cancer (Society of Thoracic Surgeons) (new)

Description: Percentage of patients > 18 years of age undergoing elective lung resection (Open or VATS wedge resection, segmentectomy, lobectomy, bilobectomy, sleeve lobectomy, pneumonectomy) for lung cancer who developed any of the following postoperative complications: reintubation, need for tracheostomy, initial ventilator support > 48 hours, ARDS, pneumonia, pulmonary embolus, bronchopleural fistula, bleeding requiring reoperation, myocardial infarction or operative mortality.

1853: Radical Prostatectomy Pathology Reporting (Eligible for Time-Limited Endorsement) (College of American Pathologists) (new, time-limited)

Description: Percentage of radical prostatectomy pathology reports that include the pT category, the pN category, the Gleason score and a statement about margin status.

PALLIATIVE

0210: Proportion receiving chemotherapy in the last 14 days of life (American Society of Clinical Oncology)

Description: Percentage of patients who died from cancer receiving chemotherapy in the last 14 days of life.

0211: Proportion with more than one emergency room visit in the last days of life (American Society of Clinical Oncology)

Description: Percentage of patients who died from cancer with more than one emergency room visit in the last days of life.

0213: Proportion admitted to the ICU in the last 30 days of life (American Society of Clinical Oncology)

Description: Percentage of patients who died from cancer admitted to the ICU in the last 30 days of life.

0215: Proportion not admitted to hospice (American Society of Clinical Oncology)

Description: Percentage of patients who died from cancer not admitted to hospice.

0216: Proportion admitted to hospice for less than 3 days (American Society for Clinical Oncology)

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

1822: External Beam Radiotherapy for Bone Metastases (American Society for Radiation Oncology)(new, time-limited)

Description: This measure reports the percentage of patients, regardless of age, with a diagnosis of painful bone metastases and no history of previous radiation who receive external beam radiation therapy (EBRT) with an acceptable fractionation scheme as defined by the guideline.

BREAST CANCER

0219: Post breast conservation surgery irradiation (Commission on Cancer, American College of Surgeons)

Description: Percentage of female patients, age 18-69, who have their first diagnosis of breast cancer (epithelial malignancy), at AJCC stage I, II, or III, receiving breast conserving surgery who receive radiation therapy within 1 year (365 days) of diagnosis.

0220: Adjuvant hormonal therapy (Commission on Cancer, American College of Surgeons)

Description: Percentage of female patients, age >18 at diagnosis, who have their first diagnosis of breast cancer (epithelial malignancy), at AJCC stage I, II, or III, who´s primary tumor is progesterone or estrogen receptor positive recommended for tamoxifen or third generation aromatase inhibitor (considered or administered) within 1 year (365 days) of diagnosis.

0221: Needle biopsy to establish diagnosis of cancer precedes surgical excision/resection (Commission on Cancer, American College of Surgeons)

Description: Percentage of patients presenting with AJCC Stage Group 0, I, II, or III disease, who undergo surgical excision/resection of a primary breast tumor who undergo a needle biopsy to establish diagnosis of cancer preceding surgical excision/resection.

0391: Breast Cancer Resection Pathology Reporting- pT category (primary tumor) and pN category (regional lymph nodes) with histologic grade (College of American Pathologists)

Description: Percentage of breast cancer resection pathology reports that include the pT category (primary tumor), the pN category (regional lymph nodes) and the histologic grade.

0559: Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1c, or Stage II or III hormone receptor negative breast cancer (American College of Surgeons)

Description: Percentage of female patients, age >18 at diagnosis, who have their first diagnosis of breast cancer (epithelial malignancy), at AJCC stage T1c, or Stage II, or III, who´s primary tumor is progesterone and estrogen receptor negative recommended for multiagent chemotherapy (considered or administered) within 4 months (120 days) of diagnosis.

0387: Oncology: Hormonal therapy for stage IC through IIIC, ER/PR positive breast cancer (AMA-PCPI)

Description: Percentage of female patients aged 18 years and older with Stage IC through IIIC, estrogen receptor (ER) or progesterone receptor (PR) positive breast cancer who were prescribed tamoxifen or aromatase inhibitor (AI) during the 12 month reporting period.

1857: Patients with breast cancer and negative or undocumented human epidermal growth factor receptor 2 (HER2) status who are spared treatment with trastuzumab (American Society of Clinical Oncology) (new)

Description: Percentage of adult patients (aged 18 or over) with invasive breast cancer that is HER2/neu negative who are not administered trastuzumab.

1855: Quantitative HER2 evaluation by IHC uses the system recommended by the ASCO/CAP guidelines (College of American Pathologists) (new, time-limited)

Description: Percentage of patients with quantitative breast tumor HER2 IHC evaluation using the ASCO/CAP recommended manual system or a computer-assisted system consistent with the optimal algorithm for HER2 testing as described in the ASCO/CAP guidelines.

1858: Trastuzumab administered to patients with AJCC stage I (T1c) – III and human epidermal growth factor receptor 2 (HER2) positive breast cancer who receive adjuvant chemotherapy (American Society of Clinical Oncology) (new)

Description: Percentage of adult patients (aged 18 or over) with invasive breast cancer that is HER2/neu positive who are administered trastuzumab.

1878: Human epidermal growth factor receptor 2 (HER2) testing in breast cancer (American Society of Clinical Oncology) (new)

Description: Percentage of adult patients (aged 18 or over) with invasive breast cancer who receive human epidermal growth factor receptor 2 (HER2) testing.

COLORECTAL CANCER

0223: Adjuvant chemotherapy is considered or administered within 4 months (120 days) of surgery to patients under the age of 80 with AJCC III (lymph node positive) colon cancer (Commission on Cancer, American College of Surgeons)

Description: Percentage of patients under the age of 80 with AJCC III (lymph node positive) colon cancer for whom adjuvant chemotherapy is considered or administered within 4 months (120 days) of diagnosis.

0225: At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer (Commission on Cancer, American College of Surgeons)

Description: Percentage of patients >18yrs of age, who have primary colon tumors (epithelial malignancies only), experiencing their first diagnosis, at AJCC stage I, II or III who have at least 12 regional lymph nodes removed and pathologically examined for resected colon cancer.

0385: Oncology: Chemotherapy for Stage IIIA through IIIC Colon Cancer Patients (AMA-PCPI)

Description: Percentage of patients aged 18 years and older with Stage IIIA through IIIC colon cancer who are referred for adjuvant chemotherapy, prescribed adjuvant chemotherapy or have previously received adjuvant chemotherapy within the 12 month reporting period.

0392: Colorectal Cancer Resection Pathology Reporting- pT category (primary tumor) and pN category (regional lymph nodes) with histologic grade (College of American Pathologists)

Description: Percentage of colon and rectum cancer resection pathology reports that include the pT category (primary tumor), the pN category (regional lymph nodes) and the histologic grade.

1859: KRAS gene mutation testing performed for patients with metastatic colorectal cancer who receive anti-epidermal growth factor receptor monoclonal antibody therapy (American Society of Clinical Oncology) (new)

Description: Percentage of adult patients (aged 18 or over) with metastatic colorectal cancer who receive anti-epidermal growth factor receptor monoclonal antibody therapy for whom KRAS gene mutation testing was performed.

1860: Patients with metastatic colorectal cancer and KRAS gene mutation spared treatment with anti-epidermal growth factor receptor monoclonal antibodies (American Society of Clinical Oncology) (new)

Description: Percentage of adult patients (aged 18 or over) with metastatic colorectal cancer and KRAS gene mutation spared treatment with anti-EGFR monoclonal antibodies.

Endnotes

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5. Sherr DL, Stessin AM, Demographic disparities in patterns of care and survival outcomes for patients with resected gastric adenocarcinoma. Cancer Epidemiol Biomarkers Prev. 2011 Mar;20(2):223-33.

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