

#### **NCCN.org**

Fred Hutchinson Cancer
Research Center/
Seattle Cancer Care Alliance

Huntsman Cancer Institute at the U. of Utah

UCSF Helen Diller Family
Comprehensive Cancer Center

Stanford Comprehensive Cancer Center

City of Hope Comprehensive
 Cancer Center

Robert H. Lurie Comprehensive Cancer Center of Northwestern U.

UNMC Eppley Cancer Center at The Nebraska Medical Center

> Siteman Cancer Center at Barnes-Jewish Hospital and Washington U. School of Medicine

> > St. Jude Children's 
> > Research Hospital/
> > U. of Tennessee
> > Cancer Institute

The University of Texas MD Anderson Cancer Center

Dana-Farber/Brigham and
Women's Cancer Center
Massachusetts General Hospital
Cancer Center

Roswell Park Cancer Institute

Memorial Sloan-Kettering
Cancer Center

U. of Michigan Comprehensive Cancer Center

Fox Chase Cancer Center
 The Sidney Kimmel
 Comprehensive Cancer

Center at Johns Hopkins

The Ohio State University
Comprehensive Cancer Center James Cancer Hospital and
Solove Research Institute

Duke Comprehensive
 Cancer Center

Cancer Center

Vanderbilt-Ingram

U. of Alabama at Birmingham Comprehensive Cancer Center

> H. Lee Moffitt Cancer Center & Research Institute

# NCCN Guidelines Quality of Care and Value Initiatives

November 20, 2010



#### **US Health Care Reform**

- Broader access to health insurance; no adverse selection
- Payers (insurers and employers) are increasingly focused on cost.
- Academic centers are more expensive than community hospitals in the US
- Higher cost hospitals expected to prove they provide greater benefits that offset the higher costs.
- Prove the value.

#### The NCCN Value Equation

Right Diagnosis, Right Treatment, Right Setting = Better Outcomes, Enhanced Efficiency

Accurate diagnosis and staging: Pathology expertise Work up and treatment planning: Multidisciplinary team Volume and outcomes: Surgery, radiation therapy

Surveillance and follow-up Palliative care, hospice, end of life care

- Brain/CNS tumors 25% important diagnostic errors (Cancer)
- An NCCN neuropathologist may review 50-fold the number of brain/CNS tumor cases seen in a typical community center
- Bladder ca 18% dx error; avoidance of unnecessary surgery (Cancer)

- Extensive
- experience

  Subspecialty
  (medical, surgical,
  radiation, pathology)
  expertise
- MD tumor conferences for treatment planning
- Patient-centric care
- NEJM, JAMA, MEDTAP studies: NCCN volumes and experience = Lower mortality and less complications
- Coordinated surveillance and follow-up
- Personalized plan with appropriate use of imaging, biomarkers, monitoring, and evaluation
- From NCCN
   Outcomes Database:
   Only 115 patients who died with metastatic NSCLC received RT at EOL (10%). In addition, only 120 patients received chemotherapy at EOL (11%) (ASTRO oral presentation)
- Palliative care programs at all NCCN centers

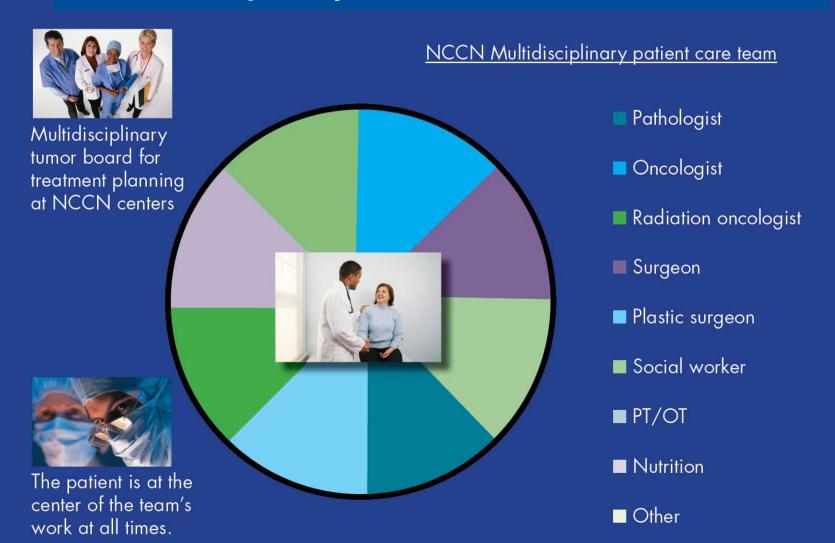
NCCN Guideline concordance and quality measures

Patient experience and satisfaction

#### Pathology Expertise

- Many publications describe frequency of change in diagnosis with second read by subspecialist pathologists.
- Change of diagnosis affecting treatment choice can be up to 20% depending on type of cancer.
- Errors are most common in CNS, hematologic malignancies, sarcoma, and skin, prostate and breast cancers.
- Changes from benign to malignant or vice versa or from one histology to another or one biologic group to another are significant for patient management.

#### **Multidisciplinary Care Team in Breast Cancer**



# Expert Multidisciplinary Teams and Treatment Planning

- Multidisciplinary tumor board to review cases
  - Ensures that all options are considered
  - Accurate and precise pathology including biomarkers– guides oncologist in choosing most appropriate and cost-effective treatment option
- Multidisciplinary patient care team
  - Ability to confer with subspecialists in real time
  - Facilitates coordinated, patient-centric care
  - MD team of experts identify and address problems before they become more costly and difficult to treat

# Surgical Outcomes at Comprehensive Cancer Centers

A recent study commissioned by the National Comprehensive Cancer Network determined that patients who have cancer surgery at Comprehensive Cancer Centers have lower mortality and complication rates compared to those who had surgery at other institutions:

Type of Cancer	Mortality* Complication	
All Cancers	52.7% lower	19.4% lower
Colon	51.8% lower	15.9% lower
Lung	50.2% lower	27.1% lower
Ovarian	57.0% lower	6.6% lower**
Pancreatic	85.5% lower	48.6% lower
Rectal	58.1% lower	10.8% lower**

MEDTAP International, Inc; "A retrospective database study of quality of care in cancer surgery," 2005.

<sup>\*</sup> Univariate analysis comparing all patients who had surgery at Comprehensive Cancer Centers to those treated at other institutions, regardless of age, gender, race, admission source, and the number of co-morbidities

<sup>\*\*</sup> Not statistically significant

### **Comparative Effectiveness Research**

- NCCN developing comparative therapeutic index: Risk vs benefit
- Published preliminary concept
- Beginning to test reliability and validate scales
- Highest efficacy, lowest toxicity for least cost equals value

### Expert Surveillance = Better Efficiency

NCCN recommends against use of PET/CT, imaging except mammography, and markers in routine follow-up

Printed by Joan McClure on 11/16/2010 2:19:15 PM. For personal use only. Not approved for distribution. Copyright © 2010 National Comprehensive Cancer Network, Inc., All Rights Reserved. Comprehensive NCCN Guidelines™ Version 1.2011 NCCN Guidelines Index Breast Cancer Table of Contents Cancer **Invasive Breast Cancer** Network<sup>8</sup> Staging, Discussion SURVEILLANCE/FOLLOW-UP RECURRENT WORKUP INITIAL WORKUP FOR STAGE IV DISEASE Interval history and physical exam every 4-6 mo History and physical exam for 5 y, then every 12 mo CBC, platelets Locoregional Annual mammography Liver function tests disease Women on tamoxifen: annual gynecologic Chest imaging assessment every 12 mo if uterus present Bone scan X-rays of symptomatic bones and long See Treatment · Women on an aromatase inhibitor or who and weight-bearing bones abnormal on of Recurrence/ experience ovarian failure secondary to treatment Stage IV Disease should have monitoring of bone health with a bone Consider abdominal CT or MRIdd (BINV-17) mineral density determination at baseline and First recurrence of disease should be periodically thereaftercc biopsied · Assess and encourage adherence to adjuvant Consider determination of tumor ER/PR endocrine therapy. and HER2 status if unknown, originally Evidence suggests that active lifestyle, achieving negative or not over-expressed<sup>b</sup> and maintaining an ideal body weight (20-25 BMI) · Genetic counseling if patient is high risk may lead to optimal breast cancer outcomes. for hereditary breast cancer<sup>c</sup> bSee Principles of HER2 Testing (BINV-A) <sup>©</sup>See NCCN Genetics/Familial High-Risk Assessment: Breast and Ovarian Guidelines. on The use of estrogen, progesterone, or selective estrogen receptor modulators to treat osteoporosis or osteopenia in women with breast cancer is discouraged. The use of a bisphosphonate is generally the preferred intervention to improve bone mineral density. Optimal duration of bisphosphonate therapy has not been established. Factors to consider for duration of anti-osteoporosis therapy include bone mineral density, response to therapy, and risk factors for continued bone loss or fracture. Women treated with a bisphosphonate should undergo a dental examination with preventive dentistry prior to the initiation of therapy, and should take supplemental dd The use of PET or PET/CT scanning should generally be discouraged for the evaluation of metastatic disease except in those clinical situations where other staging studies are equivocal or suspicious. Even in these situations, biopsy of equivocal or suspicious sites is more likely to provide useful information. Note: All recommendations are category 2A unless otherwise indicated. Clinical Trials: NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.

# Palliative Care, Hospice, and End of Life Care

- All NCCN Centers have ongoing palliative care programs
- Focus of care shifts gradually from cure to symptom control and quality of life

# NCCN Opportunities for Improvement

- Institutions to review patients concordance to category 1 treatment recommendations
- 85% concordance level
- Institutions convene group of BCA physicians to review data
- Baseline report and Follow-up Report

### **NCCN Improvement Action Plans**

- Continued discussion with the NCCN BCA Guidelines Panel
- Review and present concordance analyses internally at the member institutions
  - Present data to the clinicians at their respective institutions to support efforts for quality improvement
  - Review charts of the patients given non-concordant care on the guidelines that were identified as "opportunities for improvement (OFI)" to understand the reasons for non-concordance.
- Generate reports describing various process measures such as time to definitive surgery, chemo, and other endpoints
- Formalize the process of reviewing unblinded data with all disease-specific databases and auditing non-concordance at institutions

### Institutional Expectations

- Oversight by Institutional PI
- Appoint a QI contact for this project
- Convene a group of institutional breast cancer providers to review OFI data
- QA and QI Review of OFI data for baseline and second reports
  - QA review "non-concordant" patients for data quality issues
  - QI review of patients where institutional concordance rate is less than 85% and document reasons for nonconcordance

## **Baseline Report**

Cohort	Recommended Treatment	Institution Requiring Review	NCCN Aggregate Rate
Stage I/II node negative, HR positive, tumor size 0.6-1.0 cm, moderately and poorly differentiated or unfavorable features	Adjuvant endocrine therapy +/- adjuvant chemotherapy	~2 Institutions	90.0%
Among < 70 yrs, Stage I/II node negative, HR negative, HER-2 neu not overexpressed, tumor size>1 cm	Adjuvant chemotherapy	~3 Institutions	87.6%
Stage I/II node negative, HR positive, HER2-neu not overexpressed, tumor size >1 cm	Adjuvant endocrine therapy +/- chemotherapy	~2 Institutions	90.9%
Among <70 yrs, Stage II, node positive, HR positive, HER2-neu not overexpressed	Adjuvant chemotherapy + endocrine therapy	~8 Institutions	75.0%
Stage I and II with BCS	ALNS + RT or no RT for age>70, HR positive, clinical node negative, T1 tumor who receive adj ET	~2 Institutions	92.0%
Cohort: All Stage 0-III with metastatic recurrence with bone disease present	Tx: Bisphosphonate	~5 Institutions	79.3%

#### **International Outcomes Database**

- Nonsmall cell lung cancer first disease site
  - Number 1 cancer mortality worldwide
  - Relatively short time horizons
  - Active evolution of standard of care
- Will identify practice patterns and measure concordance with NCCN Guidelines
- NCCN is Seeking collaborating hospitals

DRAFT



#### **NCCN.org**

Fred Hutchinson Cancer
Research Center/
Seattle Cancer Care Alliance

Huntsman Cancer Institute at the U. of Utah

UCSF Helen Diller Family Comprehensive Cancer Center

Stanford Comprehensive Cancer Center

City of Hope Comprehensive
 Cancer Center

Robert H. Lurie Comprehensive Cancer Center of Northwestern U.

UNMC Eppley Cancer Center at The Nebraska Medical Center

> Siteman Cancer Center at Barnes-Jewish Hospital and Washington U. School of Medicine

> > St. Jude Children's 
> > Research Hospital/
> > U. of Tennessee
> > Cancer Institute

The University of Texas MD Anderson Cancer Center

Dana-Farber/Brigham and
Women's Cancer Center
Massachusetts General Hospital
Cancer Center

Roswell Park Cancer Institute

Memorial Sloan-Kettering Cancer Center

U. of Michigan Comprehensive Cancer Center

Solove Research Institute

Fox Chase Cancer Center
The Sidney Kimmel

The Ohio State University
Comprehensive Cancer Center James Cancer Hospital and

Vanderbilt-Ingram
Cancer Center

U. of Alabama at Birmingham Comprehensive Cancer Center Ouke Comprehensive Cancer Center

H. Lee Moffitt Cancer Center & Research Institute