Objectives

• Describe efforts underway to harmonize data elements and concepts used in cancer staging

• Discuss creation of common definitions and measurements for consistent capture of data

• Discuss creation of biomarker documentation and clinical use for consistent recording of data
Identified Need

- Awareness of ambiguity of terms
- Differences between agencies and countries
- Differences between AJCC 7th edition chapters
Identification of Terms

- Identify common terms between AJCC chapters
- Review definitions for differences
- Assess other differences
  - Measurements
  - Standard vs. varies for interpretation of results
Identification of Concepts

• Identify common concepts among AJCC chapters

• Review potential differences

• Assess methods of documentation
  – Definitions
  – Standard scoring systems
Examples

• Terms
  – Mitotic rate, mitotic count
    • Measured per mm$^2$ or per HPF
    • GIST, NET, pancreas, melanoma

• Concepts
  – Response to neoadjuvant therapy, tumor regression score
    • CR, PR, scores 0-3, scores 4-1, other scoring systems
    • Rectum, breast
Integration of Projects

- Lexicon
- Identify Data Harmonization Terms
- Data Harmonization for Cancer Staging
Lexicon Project

Goal

international harmonization and understanding of terminology around cancer terms and concepts used in staging and prognostic factors
Lexicon Project

• Define a taxonomy of common language

• Initiate dialogue with worldwide community
  – Medical Organizations
  – Physician experts

• Publish definitions of cancer staging terms
Definitions and Measurements

• Review existing information

• Look for industry standards & guidelines

• Includes
  – Method of measurement – quantitative
  – Interpretation – qualitative
  – Clear anatomic parameters for pathologists
Collaboration with Data Dictionaries

- Investigate existing definitions and documentation
- caDSR – collection of data elements – describes variable and permissible answers
- National Library of Medicine & other enterprise systems
  - NCI EVS (Enterprise Vocabulary Service)
  - NCI Thesaurus, MedDRA, SNOMED-CT
Achieving Consensus

International Consensus

Medical Assoc

AJCC

Phy Experts

International Consensus

ajcc
Biomarker Documentation

- Review existing guidelines
- Partner with other agencies to add necessary information
- Includes
  - Which patients are appropriate
  - Timing – diagnostic workup, after surgery
  - Where to find the results (lab, path report)
  - Method of measurement – quantitative
  - Interpretation – qualitative
Biomarker Clinical Use

- Scenario specificity – criteria for use, type of case
- Predictive – choose treatment
- Prognostic – outcomes
Use in AJCC 8th Edition

• Consistency between chapters

• Clear documentation of data element
  – Definition
  – Explanation of usage, patient selection
  – Quantitative and qualitative levels

• Rationale for any differences
Data Capture

• Consistent expression in medical record
  – Same terminology
  – Standard quantitative values
  – Standard qualitative values
  – Clear documentation when variability exists

• Data analysis depends on consistency

• Future: ability to capture data from electronic sources for cancer registry
Recording Data

- Recognize cases appropriate for biomarkers
- Record results prior to treatment or after
- Specific criteria for multiple tests
  - Different results
  - Necessity of additional test confirmation
- Assist registrar in understanding
  - When to look for data
  - When test will not be done
Education

Inform medical community

Raise awareness

Solicit participation

Now

Disseminate information

Encourage adoption & usage

Later

Improved patient care

Result
Next Steps for Data Harmonization

- AJCC 8th Core Groups
- Data Harmonization
- Terms & Concepts
- Lexicon Project
Questions

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