



# Lesson 6

Additional Material: What is Cancer Staging



## **Cancer Staging**



- Why it is needed
- How is a cancer's stage determined
- What does it mean
- How is it used



## Why Stage is Needed



- Cancer usually needs a team of physicians to provide care
  - Primary care physician (family physician)
  - Radiologist (reports on imaging)
  - Pathologist (reports on tissue removed from your body)
  - Surgeon (removes the cancer through surgery)
  - Medical Oncologist (treats with cancer drugs)
  - Radiation Oncologist (treats with radiation)
- Common language for accurate physician communication



## **Staging Information**



- Cancer staging
  - Describes amount of cancer in patient's body
  - Describes where the cancer has spread to within the body
  - Can include other information about the cancer



#### **Determining the Stage**



- Stage is based on where in the body the cancer started not where it spread to
  - Example: breast, colon, lung
- AJCC Cancer Staging Manual 8th edition
  - Presents rules for staging
  - Individual chapters by parts of the body (disease sites)
  - Written by leading experts and used worldwide
  - Based on national cancer data that is continually collected from hospitals and analyzed
- AJCC Cancer Staging Version 9
  - Presents rules for staging
  - Individual protocols by parts of the body (disease sites)
  - Written by leading experts and used worldwide
  - Based on national cancer data that is continually collected from hospitals and analyzed





#### AJCC stage includes:

- T main tumor in the body, where it started
- N spread of cancer to lymph nodes, metastasis to lymph nodes
- M distant metastasis, or the spread of cancer to other parts of the body, either through the lymph nodes or through the blood



#### T, N, M



- Each T, N, and M categories are assigned numbers
- Higher numbers mean more cancer involvement than the lower numbers
- T category is numbered 0 through 4
- N category is numbered 0 through 3
- M category is numbered 0 through 1



## Calculation of T, N, M



- The physician chooses the T, N, and M that best describes the patient's cancer
- These are written together to describe the patient's cancer
- There are many possible calculations of T, N, M
  - For example:
    - T1 N0 M0
    - T2 N1 M0
    - T4 N2 M1



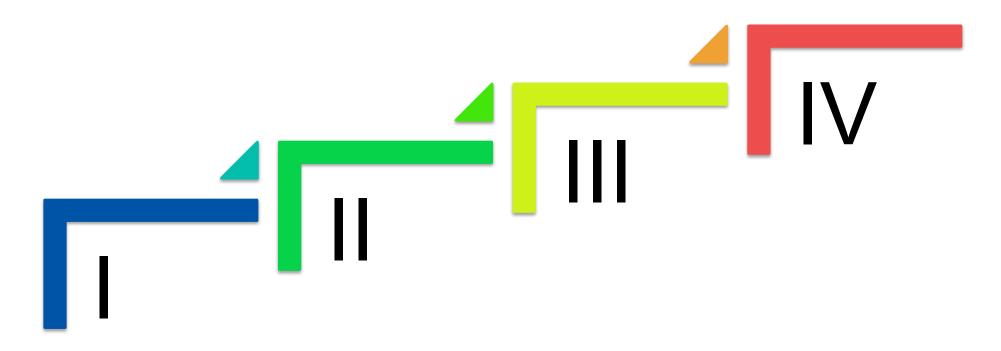
#### Stage



- The calculations of T, N, and M are put into a stage group, simply called stage
- Four main stage groups
  - I, II, III, IV
  - May be broken down further: IA, IB
- Stage
  - There are many possible calculations of the numbered categories for T, N, and M
  - Organizes calculations into four stage groups







Different criteria for each stage, and also different by part of the body where the cancer started



### Meaning of Stage



- Why classify TNM into a stage
  - Gather together patients that will have the same type of treatment
  - Gather together patients that will have the same outcome or chance of survival

- What does the stage number mean
  - Higher numbers mean it has spread in the body
  - Higher numbers mean it is more aggressive



#### How Staging is Used



- Used to select treatment
  - Guidelines are available to help physicians choose the best treatments based on the stage

- Used to predict outcome
  - Information is gathered on many patients based on stage
  - Chance of recurrence of cancer
  - Patient's probability of surviving over a number of years (1, 5, 10 years)



## **Staging Summary**



- A language for physicians
- Provides information to the patient



### **TNM Stage Process**



Determine timeframe for stage assignment

- At time of diagnostic workup clinical
- After surgical resection pathological

Assign categories: T, N, M, others

- Primary tumor
- Regional nodes
- Distant metastasis

Assign stage group that contains those categories

- 0
- I IV





Developed through generous support from the American Cancer Society.







Thank You

