Cancer Prevention in Primary Care: 
Teaching resident physicians to utilize prevention-focused motivational interviewing

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Cancer Prevention in Primary Care

• Primary Care Physicians are at the forefront of cancer prevention

• As of 2004, Cancer was the second leading cause of death in the United States*

• Cancer accounts for 13% of all deaths worldwide**

* JAMA 2004  |  ** WHO 2011
Cancer Prevention in Primary Care

• Certain lifestyle-based risk factors can increase cancer and mortality rates
• Smoking tobacco has been shown to double the death rate and reduce life expectancy*
• Obesity is estimated to account for 24% of all cancers and up to 70% for specific cancers**

*BMJ 2004  |  **World Cancer Research Fund 2009
Why Teach Cancer Prevention Strategies?

• Recommendations have called for curriculum improvements to more effectively teach cancer prevention strategies,* such as tobacco cessation counseling**

• To improve upon cancer prevention within our residency clinic and to explore patient and resident perceptions of current practices

*Prev Med 2002  |  **JAMA 2002
What Did We Do?

A series of 3 one hour lectures were conducted
- Importance of Early Detection and Prevention
- Current Cancer Prevention Guidelines*
- Taking Control of Cancer Prevention: Teaching Patients to Change
  - Motivational Interviewing
  - Stages of Readiness to Change

*USPSTF.ACOG.ACS.ASGE
What Did We Teach?

Introduction seminar included:

• Discussion of the important role Primary Care Physicians play in cancer prevention
• Presented mortality rates and trends based on preventable lifestyle behaviors
• Importance of early cancer detection
• Challenges and constraints on the Primary Care Physician
What Did We Teach?

Seminar 2 included:

- Current guidelines for cancer prevention
- USPSTF, ACOG, ACS, ASGE guidelines
- Community standards based on guidelines
- Education regarding Gardasil vaccination
- Importance of physical exam findings including a full skin examination
- Educating patients on cancer prevention
What Did We Teach?

Seminar 3 included:

– How to teach patients to make healthy choices
– Miller and Rollnick’s Principles of Motivational Interviewing *
  • Emphasizes empathy, curiosity, self-determination, acceptance, exploring ambivalence, and does not fight resistance

What Did We Teach?

Seminar 3 included:

- Avoid lecturing and pressuring patients to conform to the physician’s desired patient behavior
- Help the patient “weigh” competing desires
- Help the patient come to their own conclusion regarding the benefits and desire for healthy change
What Did We Teach?

Seminar 3 included:

- Prochaska’s Stages of Change Model* during a brief medical visit
  - Precontemplation
  - Contemplation
  - Preparation
  - Action
  - Maintenance
  - Termination

*Prochaska JO, Norcross JC, DiClemente CC: *Changing for Good*. 1994
What Did We Teach?

Seminar 3 included:

– Establishing incentives to change

• “How long would you keep bowling without keeping score?” – D. Hunnicutt

• Help patients “keep score” with their cancer prevention programs and progress
10 Target Goals for Change

1. Talk to patients about general methods of cancer risk reduction
2. Emphasize prevention as the best treatment
3. Help patients prevent and eliminate tobacco use
4. Encourage use of sunscreen
5. Emphasize benefits of good nutrition and exercise
6. Teach (when age appropriate) self breast and testicular examinations
10 Target Goals for Change

7. Encourage female patients over 40 to get an annual screening mammogram
8. Encourage males over 50 to have a DRE with their physical exam
9. Provide education regarding risks and benefits of Gardasil vaccination
10. Annually examine patient’s entire body for skin cancer and abnormal skin lesions
How Do We Measure Improvement?

• Resident and patient pre and post-seminar surveys performed

• Patients and residents were surveyed regarding frequency of cancer prevention interventions
  – Response options were:
    * Never, Rarely, Sometimes, Almost Always, and Every Visit*
Nine content areas were identified on each survey

1. General cancer prevention discussion
2. Discussion of specific cancer risk factors
3. Danger of tobacco products
4. Importance of sun protection
5. Skin examination frequency
6. Importance of nutrition and exercise
7. Teaching and encouraging self examination for breast and testicular cancer
8/9. Mammogram/DRE for age appropriate
Participants in Our Study

Pre-Test Sample
- 91 patients
- 41 physicians

Post-Test Sample
- 101 patients
- 22 physicians
Pre-Test Survey Results

- Patients reported significantly fewer physician-initiated cancer prevention interventions than did physicians (p < 0.0001).
  - Patients’ responses: Mean=2.67, SD=0.81
    - Rarely/Sometimes
  - Physicians’ responses: Mean=3.54, SD=0.51
    - Sometimes/Almost Always
Post-Test Survey Results

- Neither patients, nor physicians, reported significant improvement ($p > 0.05$).
- Patients again reported significantly fewer physician initiated cancer prevention practices ($p<0.0001$)
  - Patients’ responses: Mean=2.61, SD=1.01
    - Rarely/Sometimes
  - Physicians’ responses: Mean=3.71, SD=0.51
    - Sometimes/Almost Always
Survey Results

- Patients who attended annual physical examinations, as opposed to routine medical appointments, reported greater physician-initiated cancer prevention practices (p< 0.05).
Survey Results

- Physician improvements based on training levels:
  - PGY I: demonstrated significantly greater improvement following seminar than PGY II and PGY III (p<0.05).
  - PGY II: demonstrated significantly greater improvements following seminar than PGY III (p<0.5).
Conclusions

“If knowing what matters were what mattered, we wouldn’t be here”

- D. Katz
Conclusions

- Providing educational material and strategies for improved cancer prevention practices is only the beginning.
- However, physicians may in fact be performing greater frequencies of cancer prevention, yet not explaining to patients what they are doing.
Future Directions

Continued focus on improvement:

- **Communication**
  - Inform patients when performing cancer prevention interventions

- **Incentives**
  - Help residents “keep score” through ongoing patient surveys of their performance

- **Educational “boosters”**
  - Year-round educational focus

- **Preceptor encouragement**
  - Attain buy-in from preceptors to discuss cancer prevention during precepting
THANK YOU