Overview of CAM & Dietary Supplement Use in Cancer Patients

National Center for Complementary and Alternative Medicine

American Dietetic Association
October 19-22, 2002
What Is CAM?

... medical and health care practices outside the realm of conventional medicine, which are yet to be validated using scientific methods.

Largely used in hopes of improving wellness and relieving symptoms associated with chronic, degenerative, or fatal illness.
CAM Use in the U.S.

- In the last year, 29% of adults used CAM therapies
- Women and college graduates were the most prevalent users
- Among the most commonly used therapies are herbal (10%), chiropractic (8%), and massage (6%)

1999 NHIS Survey 30,801 adults; Hanyu et al, Med Care, 2002 40:353-358
Most Common CAM Therapies Used by Domain

Source: 1999 NHIS Survey of 30,801 adults
Dietary Supplement (Herbals & Antioxidants) Use by Cancer Patients (Surveys 1999-2002)
Why People use CAM

- Dissatisfaction with conventional medicine because of its ineffectiveness, cost, toxicity, and depersonalization
- Empowers the individual to take control over personal health decisions
- Resonates with an individual’s values, spiritual/religious philosophy, and beliefs regarding nature and the roots of illness
“People can be induced to swallow anything, provided it is sufficiently seasoned with praise.”

Jean Moliere
Anticancer Therapies Potentially Altered by Antioxidants

- Alkylating Agents (cyclophosphamide, ifosfamide)
- Platinum Compounds (cisplatin)
- Antibiotics (doxorubicin, bleomycin)
- Topoisomerase II inhibitors (etoposide)
- Radiation

"It is said that St. John's Wort may improve your mood. But perhaps it's time to cut back the dosage."
Undesirable Actions of St. John’s Wort

Increased sensitivity to the sun

Interferes with:

- Anti-cancer drugs
- Birth control medication
- Anti-depression agents
- HIV/AIDS drugs
- Prevention of organ transplant rejection
Effect of St. John’s Wort (SJW) on Irinotecan Metabolism

- 5 patients with advanced cancer
- Treatment 18 days: Irinotecan (IV-350mg/m²) with or without SJW (orally 900mg)
- SN-38 (active metabolite) plasma levels significantly (p<.033) decreased 42% (95% CI 14% - 70%)
- Myelosuppression substantially worse in absence of SJW

Free Radicals: The Pros and Cons of Antioxidants

Upcoming Workshop: June 26-27, 2003

Sponsored by:
- National Cancer Institute
- National Center for Complementary & Alternative Medicine
- Office of Dietary Supplements

Topics:
- Oxidative Stress- Positive and Negative
- Clinical Aspects of Antioxidant Use
- Chemotherapy/Radiotherapy Antioxidant Interactions
- Biomarkers, Endpoints, Model systems
# NCCAM’s Phase III Clinical Trials

<table>
<thead>
<tr>
<th>Condition</th>
<th>Therapy</th>
<th>Cosponsor</th>
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<tbody>
<tr>
<td>Dementia</td>
<td><em>Ginkgo biloba</em></td>
<td>NIA, NHLBI, NINDS</td>
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<tr>
<td>Osteoarthritis</td>
<td>Acupuncture</td>
<td>NIAMS</td>
</tr>
<tr>
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<td>NIAMS</td>
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<tr>
<td>Lung cancer</td>
<td>Shark cartilage</td>
<td>NCI</td>
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<tr>
<td><strong>Prostate cancer</strong></td>
<td><strong>Vitamin E/selenium</strong></td>
<td>NCI</td>
</tr>
<tr>
<td>Minor depression</td>
<td>St. John’s wort</td>
<td>NIMH, ODS</td>
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<tr>
<td>Coronary artery disease</td>
<td>EDTA chelation therapy</td>
<td>NHLBI</td>
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<tr>
<td>Benign prostate hypertrophy</td>
<td>Saw palmetto/African plum</td>
<td>NIDDK, ODS</td>
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U10: Cooperative Clinical Research

Project: Selenium-Vitamin E Prostate Prevention Multicenter Trial (Charles Coltman, MD)

Site: Southwest Oncology Group (cosponsored with NCI)
## SELECT Trial

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<thead>
<tr>
<th><strong>Objective:</strong></th>
<th>Prevention of prostate cancer (overall survival, cancer free survival, cardiovascular events, quality of life)</th>
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<tbody>
<tr>
<td><strong>Intervention:</strong></td>
<td>Selenium (200 mg/d) and/or Vitamin E (400 mg/d)</td>
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<td><strong>Design:</strong></td>
<td>2 x 2 factorial (n=36,000) ≥ 55 (AA men ≥ 50); No prior history prostate cancer</td>
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<td><strong>Follow-up:</strong></td>
<td>7-12 years (6 month intervals; annual DRE &amp; PSA)</td>
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