Integrated care for cancer patients

April 8, 2016
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Well being for cancer patients is much more than good test results

• Other challenges
  – Stress
  – Anxiety, depression
  – Cognitive function
  – Fatigue
  – Pain
  – Sexual Function
  – Sleep disorder
  – Relationships

Disclosures- sources of support

• National Cancer Institute: K23 and UM1 Supplement
• Southwestern Cooperative Oncology Group
• Community Foundation of the National Capital Region
• Billi Marcus Foundation
• Lilly
• Start-A-Cure (crowd funding)

What is integrative medicine?

- Prevention
- Screening
- Accurate diagnosis
- Precision medicine and immunology
- Support groups
- Meditation
- Exercise
- Supplements
- Nutrition
- Care-giver well-being
- Surgery
- Chemotherapy
- Supportive medications
- Genetic counseling
- Radiation
- Social work/financial health
- Acupuncture
- Massage
- Spirituality
- Managing co-morbidities
- Wheel of Health
Helping cancer patients live healthier lives

- Improving strength and endurance
- Lessening nausea associated with chemotherapy
- Reducing headaches and sleep disorders
- Relieving pain and muscle tension
- Relieving anxiety and stress
- Helping select herbs and other dietary supplements
- Enhancing positive lifestyle changes

Why do patients use supplements?

Characteristics that predict use of complementary medicine by all patients:¹

- Were more educated
- Had poorer health status
- Saw health care alternatives as more congruent with their values and beliefs
- Dissatisfaction with conventional medicine did NOT predict use of complementary medicine

Cancer patients may use the internet to acquire expertise to display competence in the face of serious illness.²

EVIDENCE MATTERS

Here’s how physicians assess the value of evidence

<table>
<thead>
<tr>
<th>Strength of Evidence</th>
<th>High</th>
<th>Moderate</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>1A</td>
<td>1B</td>
<td>1C</td>
</tr>
<tr>
<td>Weak</td>
<td>2A</td>
<td>2B</td>
<td>2C</td>
</tr>
</tbody>
</table>

1 Astin, JAMA 1998, 2 Ziebland, BMJ 2004
What we do with that evidence?

<table>
<thead>
<tr>
<th>Grade</th>
<th>Recommendations</th>
<th>Strength of evidence</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Strong, high quality evidence</td>
<td>RCTs without important limitations</td>
<td>Strong recommendation, can apply to most patients</td>
</tr>
<tr>
<td>1B</td>
<td>Strong, moderate-quality evidence</td>
<td>RCTs with important limitations, or exceptionally strong evidence from observational studies</td>
<td></td>
</tr>
<tr>
<td>1C</td>
<td>Strong, low or very low quality evidence</td>
<td>Observational studies or case series</td>
<td></td>
</tr>
<tr>
<td>2A</td>
<td>Weak recommendation, high-quality evidence</td>
<td>RCTs without important limitations</td>
<td></td>
</tr>
<tr>
<td>2B</td>
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SIO Data: Strength of evidence on which to make recommendation

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Stress</th>
<th>Anxiety</th>
<th>Depression</th>
<th>Cognitive Function</th>
<th>Fatigue</th>
<th>Pain</th>
<th>Sexual Function</th>
<th>Sleep Disorder</th>
<th>Progression/Recurrence of cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise and physical activity*</td>
<td>1B</td>
<td>1B</td>
<td>1B</td>
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<td>1B</td>
<td>1B</td>
<td>1B</td>
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<tr>
<td>Healthy Diet</td>
<td>1B</td>
<td>1B</td>
<td>1C</td>
<td>18</td>
<td>1B</td>
<td>1B</td>
<td>1B</td>
<td>1B</td>
<td>1B</td>
</tr>
<tr>
<td>Nutritional supplements</td>
<td>1B</td>
<td>1B</td>
<td>1B</td>
<td>1B</td>
<td>1B</td>
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<tr>
<td>Meditation, yoga, relaxation, etc.</td>
<td>1B</td>
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<tr>
<td>Support groups</td>
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<tr>
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<td>1B</td>
<td>1A</td>
<td>1C</td>
<td>1B</td>
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<tr>
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Sources of Consensus on Evidence


Kidney cancer patient: Healthy eating and exercise work (50 pound weight loss)

Before diet, May 2013

After diet, October 2013

* 1A for breast cancer, NCCN says exercise also improves cognitive function
** Massage is 1A for fatigue at NCCN
Kidney cancer patient: Later other interventions are needed

Distress management - anxiety/depression (NCCN/SIO)

NCCN: Beyond counseling and pharmacology
- Support groups
- Relaxation, meditation, creative therapies (dance, art, music, etc.)
- Exercise
- Spiritual support

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**1A for breast cancer, NCCN says exercise also improves cognitive function
** Massage is 1A for fatigue at NCCN

Stress management in VHL Alliance Patient Databank

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percent of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking, running</td>
<td>90</td>
</tr>
<tr>
<td>Snuggle or play w/spouse/children</td>
<td>80</td>
</tr>
<tr>
<td>Snuggle or play w/pet</td>
<td>70</td>
</tr>
<tr>
<td>Play cards/games with friends</td>
<td>60</td>
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<tr>
<td>Sports</td>
<td>50</td>
</tr>
<tr>
<td>Online support group</td>
<td>40</td>
</tr>
<tr>
<td>Yoga, pilates</td>
<td>30</td>
</tr>
<tr>
<td>Face-to-face support group</td>
<td>20</td>
</tr>
<tr>
<td>Dancing, skating</td>
<td>10</td>
</tr>
<tr>
<td>Book club</td>
<td>0</td>
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</table>
Cognitive function improvement (NCCN/SIO)

NCCN
- There is no standard therapy for improving cognitive function in cancer patients though there is some data that cognitive rehabilitation programs (psychiatric therapy) may improve cognitive function.

(Hines, Worldviews Evidence Based Nursing, 2014)

Fatigue management (NCCN/SIO)

NCCN
- Energy conservation (set priorities, delegate, schedule for peak energy time, etc.)
- Distraction (games, music, reading, socializing)
- Limit naps to < 1 hour
- Exercise (appropriate per doctor)
- Yoga
- Massage
- Nutrition (counseling)
- Bright white light therapy
- Also treat for pain and sleep dysfunction

Pain management (NCCN/SIO)

NCCN: “in addition to drugs”
- Massage
- Acupuncture
- Heat/cold
- Mind body relaxation etc.
- Spiritual
- Skills training (deep muscle relaxation)
- Multi-modal is especially helpful

Sexual dysfunction management (NCCN/SIO)

NCCN
- Alleviate pain
- Alleviate stress
- Treat sleep disorders
Sleep disorder management (NCCN/SIO)

NCCN
- Regular exercise morning/afternoon
- Exposure to bright light (day)
- Avoid heavy meals near bedtime
- Avoid alcohol/caffeine near bedtime
- Set aside worry time before bedtime
- Maintain regular bedtime
- Limit naps to 1 per day (<30 min)

SIO

Sleep disorder

Exercise and physical activity* 1B
Healthy Diet 1B
Nutritional supplements 2B
Meditation, yoga, relaxation, etc. 1B
Support groups 1A
Massage Therapy
Energy therapy
Acupuncture

Promoting your health through healthy diet and exercise (ACS)

Achieve and maintain a healthy weight throughout life.
- Be as lean as possible throughout life without being underweight.
- Avoid excess weight gain at all ages. For those who are overweight or obese, losing even a small amount of weight has health benefits and is a good place to start.
- Get regular physical activity and limit intake of high-calorie foods and drinks as keys to help maintain a healthy weight.

Be physically active.
- Get at least 150 minutes of moderate intensity or 75 minutes of vigorous intensity activity each week (or a combination of these), preferably spread throughout the week.
- Limit sedentary behavior such as sitting, lying down, watching TV, and other forms of screen-based entertainment.
- Doing some physical activity above usual activities, no matter what one’s level of activity, can have many health benefits.

Promoting your health through healthy diet and exercise (ACS)

Eat a healthy diet, with an emphasis on plant foods.
- Choose foods and drinks in amounts that help you get to and maintain a healthy weight.
- Limit how much processed meat and red meat you eat.
- Eat at least 2½ cups of vegetables and fruits each day.
- Choose whole grains instead of refined grain products.

If you drink alcohol, limit your intake.
- Drink no more than 1 drink per day for women or 2 per day for men.

New data on exercise

A run a day keeps the tumour at bay

Exercise protects against cancer. Researchers now understand why
Avoid these foods that increase inflammation:
• Charbroiled meat
• Refined sugar (white bread, white pasta, rice, refined grains, alcohol, desserts, candies, cookies, ice cream)

Eat more “good foods”:
• Green vegetables
• Whole grains
• Red and blue fruits
• Omega 3 and 6 oils (fish, nuts, olive oil, avocado)

Where to get help
• Social workers
• Dieticians
• Support groups
• Integrative medicine programs at leading cancer centers or practitioners that focus on integrative medicine.

Acknowledgements
• Johns Hopkins Sidney Kimmel CCC
  – Michael Carducci
  – Hans Hammers
  – Sam Denmeade
  – Emmanuel Antonarakis
  – Charles Drake
  – Noah Hahn
  – Ken Pienta
• Marcus Foundation
  – Fred Sanfilippo
• National Cancer Institute
  – Mark Levine
  – Jeffrey White

Questions?