Financial Disclosures

• I currently have or have had the following relevant financial relations to disclose:

Grant/Research Support:
Amgen, Glaxo-Smith Kline, Ortho-biotech, Pfizer
Off-Label Use Disclosures

• I **do not intend** to discuss off-label uses of products during this activity.
Objectives

• Illustrate changing trends in cancer survivorship: **Why?**

• Identify critical components of survivorship care: **What?**

• Describe survivorship programming: **Who and How?**
  – planning
  – implementation
  – metrics
  – Evaluation

• Discuss the diverse models: **Structure?**
Who is a Cancer Survivor?

An individual is considered a cancer survivor from the time of diagnosis, through the balance of his or her life. Family members, friends, and caregivers are also impacted by the survivorship experience, and therefore included in this definition.

NCI Office of Cancer Survivorship, 1996
Phases of Survivorship*:
From *Cancer Remission to Recovery and Wellness*

**ACUTE**
- Diagnosis
- Cancer Treatment
- Acute Side Effects
- GOALS: Achieving Remission
- Managing side effects and symptoms

**INTERMEDIATE**
- Surveillance
- Maintenance Treatment
- GOALS: Functional Recovery
- Recovery from Acute Effects &
- Maintenance of Remission

**LONG TERM**
- Risk of recurrence minimal
- GOALS:
  - Health Maintenance
  - Employment
  - Functional Wellbeing
  - Emotional Wellbeing

* Fitzhugh Mullen; NEJM, 1986.
Projected Cancer Survivor Numbers in 2022

Cancer Epidemiology, Biomarkers & Prevention, 2013, 22(4), 561-570, de Moor, Cancer survivors in the United States: Prevalence across the survivorship trajectory and implications for care,
1. Risk of primary malignancy response to treatment and *risk of recurrence* depends on *type/stage of the primary tumor*.

2. Risk of *secondary effects and complications* of treatment depend on the *type of treatment*, and *combinations of treatment*, as well as *the age, gender and health of the patient*.

3. Survivorship care therefore must be tailored to *each person’s tumor, treatment, age, gender, and health history*. 
Components of Health Care in Long-Term Survivorship

Cancer Surveillance:
- *Detection and treatment* of late malignancy recurrence and new second malignancies

Cancer Prevention/Screening:
- *Lifestyle* changes to *prevent* cancer and risk assessment/screening for second cancers

Side Effect Management:
- *Health maintenance* and observation of *vital organ function*

Psychosocial Function:
- *Psychosocial support services* to maintain access to health care, healthy relationships and restored life

*From Cancer Patient to Cancer Survivor: Lost in Transition* IOM, 2005 Report
Where To Start?: Identify People

• Leadership
  – Identify a champion
    • What is possible given leadership priorities and resources
  – Survey/interview your involved providers
  – Survey your community providers
  – Start with your early adaptors

• Determine the mission of the program
  – What do you want to achieve (short term and long term)
Analyzing your Practice: who are the key stakeholders?

- Patient & Family
- Oncologists
- Operations & Business Staff
- Advanced Practice Providers
- Allied Health
- Referring Physicians
- Nursing Personnel
Where To Start?: Identify Data

- **Conduct an Environmental Assessment**
  - Who are the survivors in your clinic/service
  - What’s needed by your survivor population
  - What services do you have now that could be offered to survivors
  - What are your gaps in services
  - Identify and examine barriers
  - What services are available in your community
  - Build on your existing strengths
Analyzing your Patient Survivor Populations

1. **Setting the population endpoints:** age ranges, dates of diagnosis, categories of malignancy diagnoses, time from last treatment

2. **Identifying sources of data:** Tumor Registry, Billing Codes, Scheduling Systems or Databanks
Where to Start? Identify Roles

- **Oncologists:** Define the Care Plan
- **Operations & Business Staff:** Patient Coverage
- **Patient & Family:** Provide feedback/evaluation
- **APPs:** Delegated Care According to the Plan
- **Allied Health:** Integrate Support Services in care Plan
- **Nursing Personnel:** Support APPs, Patient Education
- **Referring Physicians:** Collaborate and co-manage Patient Care
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**Referring Physicians:**
- Collaborate and co-manage Patient Care

**Patient & Family:**
- Provide feedback/evaluation

**Nursing Personnel:**
- Support APPs, Patient Education

**Allied Health:**
- Integrate Support Services in care Plan

**APPs:**
- Delegated Care According to the Plan

**Operations & Business Staff:**
- Patient Coverage
Care Delivery in Survivorship: From Cancer Treatment to Recovery and Wellness

ACUTE
- Diagnosis
- Treatment
- Acute Side Effects
- GOAL: Cancer Remission
- CARE DELIVERY:
  - Oncologist & APP
  - Co-managed with Primary Care MD if other health problems

INTERMEDIATE
- Surveillance
- Maintenance Treatment
- GOAL: Recovery
- CARE DELIVERY:
  - Oncologist for surveillance and active maintenance
  - Co-manage with Primary Care MD and/or
  - APP/Allied Health team clinic

LONG TERM
- GOAL: Wellness
- CARE DELIVERY:
  - Transition to Primary Care,
  - or
  - APP and Allied Health support as appropriate

High recurrence risk and chronic malignancy: Oncologist AND Health Care support as noted above
The Cancer Care Cycle and Involved Providers

Screening/Prevention
- Primary Care

Diagnosis
- Primary Care/Refer to Oncology

Treatment
- Multi-disciplinary Oncology

Relapse/Surveillance
- Usually Primary Oncologist

Long-term Survival
- Primary Care And/Or Primary Oncologist

End of life
- Hospice

DEBATE: when is the most appropriate time point for transition to Primary Care? Who should have Co-Managed Care?
Where To Start?: Identify Tools

- Network with existing survivorship programs
- Survey/develop/adapt care tools:
  - Guidelines
  - Algorithms
  - Published data
  - Summary and Transition of Care Plans
- Educational resources: For professionals and patients
Algorithms guide clinical practice in 4 domains of care

- **Surveillance** for recurrence of the primary malignancy;
- Cancer *prevention and early screening*;
- Management of toxicities and *late effects of treatment*;
- Assessment of *psychosocial functioning*

**Same domains** embedded in body of the *Passport for Health*© or *survivorship care plan*

Survivorship algorithms also *linked to supportive care algorithms* such as the need for bone health surveillance for some survivors
Survivorship – Invasive Breast Cancer

This cancer survivorship algorithm has been specifically developed for M. D. Anderson using a multidisciplinary approach and taking into consideration circumstances particular to M. D. Anderson, including the following: M. D. Anderson’s specific patient population; M. D. Anderson’s services and structure; and M. D. Anderson’s clinical information. This algorithm is provided as informational purposes only and is not intended to replace the independent medical or professional judgment of physicians or other health care providers. Moreover, this algorithm should not be used to treat pregnant women.

ELIGIBILITY

- Male or Female with Invasive Breast Cancer 5 years Post-treatment¹, No evidence of Disease

CONCURRENTLY

**SURVEILLANCE**
- History and physical with clinical breast exam annually
- Screening mammogram annually
- Consider the following:
  - Bone Health (See Breast Cancer Survivorship: Bone Health Algorithm)
  - Cardiac screening
  - Patient education regarding symptoms including radiotherapy complications if appropriate
  - Lymphedema assessment
  - Sexual health/fertility

**MONITORING FOR LATE EFFECTS**

**RISK REDUCTION/EARLY DETECTION**
- Consider the following:
  - Gynecologic screening (See Cervical Screening Algorithm)
  - Colorectal screening (See Colorectal Screening Algorithm)
  - Diet/weight management counseling
  - Exercise/activity
  - Tobacco cessation counseling
  - Sun exposure/skin cancer screening
  - Vaccinations
  - Genetic screening

**PSYCHOSOCIAL FUNCTIONING**
- Assess for:
  - Distress
  - Financial stressors
  - Social support

Suspect new primary or biopsy-proven recurrence?
- Yes
  - See Evaluation for Recurrence on Invasive Breast Cancer Algorithm
- No
  - Continue survivorship monitoring

Refer or consult as indicated

¹ Completion of all treatment with the exception of hormonal agents
² Premenopausal women on hormonal therapy

Source: www.mdanderson.org/education-and-research/resources-for-professionals клинико-инструментальные and resources/practice-algorithms
Breast Cancer Survivorship: Bone Health

This cancer survivorship algorithm has been specifically developed for M. D. Anderson using a multidisciplinary approach and taking into consideration circumstances particular to M. D. Anderson, including the following: M. D. Anderson’s specific patient population; M. D. Anderson's services and structure; and M. D. Anderson’s clinical information. This algorithm is provided as informational purposes only and is not intended to replace the independent medical or professional judgment of physicians or other health care providers. Moreover, this algorithm should not be used to treat pregnant women.

**TREATMENT**

1. **Baseline BMD, 25-OH Vitamin D?**
   - **Yes**
     - 25-OH Vitamin D greater than or equal to 50 ng/mL and BMD normal (T-score greater than or equal to -1.0)
       - **3**
         - Repeat tests in 2 years
         - Reinforce universal recommendations
   - **No**
     - BMD abnormal (T-score less than -1.0 to -2.4)
       - **5**
         - Reinforce universal recommendations
         - Consider medical treatment or referral to bone health specialist based on risk factors (FRAX®)
     - BMD abnormal (T-score less than or equal to -2.5)
       - **7**
         - Refer to bone health specialist
         - Reinforce universal recommendations
     - 25-OH Vitamin D abnormal (less than 30 ng/mL)
       - **9**
         - Ergocalciferol 50,000 International Units once a week for 8 weeks then continue once a month
         - Recheck Vitamin D, calcium, and albumin on next visit
         - Reinforce universal recommendations
   - **Baseline BMD, 25-OH Vitamin D?**
     - **No**
       - Post-menopausal women or pre-menopausal on tamoxifen?
         - **Yes**
           - 25-OH Vitamin D greater than or equal to 50 ng/mL and BMD normal (T-score greater than or equal to -1.0)
             - **3**
               - Repeat tests in 2 years
               - Reinforce universal recommendations
         - **No**
           - BMD abnormal (T-score less than -1.0 to -2.4)
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               - Reinforce universal recommendations

**Universal recommendations:**
- Elemental calcium 1100 - 1200 mg/day
- Vitamin D 800 - 1000 International units/day
- Exercise
- Avoid tobacco
- Limit alcohol
- Limit caffeine

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1. **BMD** = Bone mineral density
2. 25-hydroxyvitamin D, also known as 25-hydroxycholecalciferol, calcidiol or abbreviated as 25-OH Vitamin D, the main vitamin D metabolite circulating in plasma.
3. Abnormal BMD: Osteopenia, T-score between -1.0 and -2.4; Osteoporosis, T-score less than or equal to -2.5
4. **FRAX** WHO Fracture Risk Assessment Tool at www.shef.ac.uk/frax

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Department of Clinical Effectiveness DRAFT V3
V2 Approved by the Executive Committee of the Medical Staff 05/31/2011
Survivorship Guidelines and Algorithms

Where To Start? Communicate

Communicate with everyone involved

Communicate often
Missing: Communication Among Providers

- 2005 Institute of Medicine (IOM) report: lack of communication between patients’ oncologists and primary care providers is a problem for care coordination.

- IOM made a recommendation to provide every survivor with a treatment summary and follow-up care plan after completing their treatment.
Preparing Patients for the Journey: Communication Tools

- **ACUTE**
  - A. Remission

- **INTERMEDIATE**
  - B. Recovery

- **LONG TERM**
  - C. Wellness

Advance Care Plan*

Treatment Summary

Transition Care Plans

* Appropriate discussion of treatment goals/probable outcomes, including long term survivorship if treatment likely curative
MDACC Passport Plan for Health
Overview of Patient Information folders

- **Patient Demographics** - Patient's permanent address, general information, MRN, next of kin contact information.

- **Alerts** - Displays the isolation and contact status.

- **Physicians** - Coordinating, Involved, and Outside – Displays who is the coordinating attending physician for inpatients, Involved Providers who have dictated on the patient in the last 6 months, and Outside (non-MD Anderson) physicians.

- **Cancer Diagnosis** - Displays the current cancer diagnosis from Tumor Registry.

- **Advance Directive** - Displays links to the patient's Advanced Directives, if any.

Patients and Outside Physicians Can View Survivorship Information Online

To view Reports, download Adobe reader

www.mymdanderson.org
Survivorship Care Plans


- LIVESTRONG Care Plan - [http://www.livestrongcareplan.org/](http://www.livestrongcareplan.org/)

Pilot a Model

- Select a Model of Care plan suitable to your practice
- Develop a financial plan
- Implement a Pilot
  - Define the patient population, care delivery model, and evaluation metrics
  - Identify early adaptors/collaborators
  - **Communicate with everyone and often how things are going**
  - Map process, implement, evaluate and REVISE
## Survivorship Care Delivery Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oncology based</strong></td>
<td></td>
</tr>
<tr>
<td>• Disease – based programs</td>
<td>Breast cancer, Colorectal cancer, Genitourinary cancer</td>
</tr>
<tr>
<td>• Treatment based programs</td>
<td>Hematopoietic stem cell transplant</td>
</tr>
<tr>
<td>• Comprehensive stand-alone programs</td>
<td>All disease type cancer survivors</td>
</tr>
</tbody>
</table>
### Survivorship Care Delivery Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shared Care</strong></td>
<td>Survivor is seen at cancer center and co-followed by the community primary care provider</td>
</tr>
<tr>
<td>Shared care between oncology practice &amp; primary care provider</td>
<td></td>
</tr>
<tr>
<td><strong>Community –based</strong></td>
<td>Includes referrals to community providers such as physical therapist, nutrition counselors, etc.</td>
</tr>
<tr>
<td>Oncologist, PCP, allied health professional</td>
<td></td>
</tr>
</tbody>
</table>
Select a Model and Formulate a Business Plan

• Analyze:
  – **Operations**: Patient volumes; time and space utilization
  – **Categories of services**: What you do now, who provides services in the domains of survivorship care; what you would like to do or can do
  – **Consequences of change**: What would change if you do build a Survivorship program within your practice?
Select a Model and Formulate a Business Plan

• Plan/Design:
  – **Who** do we need: Personnel category/numbers/hours of service
  – **Where** would it happen: Space
  – **What** infrastructure we need
  – **Other** resources
  – **Financial** revenue/expenses
Pilot test the process

1. Map the care process:
   – Define the care planning/transition appropriate to your survivor groups
   – Communication strategy is the key
   – Engage all relevant stakeholders

2. Evaluate/pilot practice change:
   – Determine evaluation endpoints
   – Implement practice change with the pilot group, and
   – Measure and share the endpoints—
Summary: Steps to Building a Survivorship Care Program

**Leadership:** Champions Program and Communicates Mission and Goals of program

**Data and SWOT Analyses:** Identify patient populations, and resources/gaps of the practice

**Select Core Practice Tools** needed for program: network with others, survey available resources

**Design and Implement a Pilot for the Program:** stakeholder engagement, operations design, and evaluation metrics

**Select Program Model and develop Financial Plan** appropriate for that Model

**Improve and deploy Program:** expand stakeholder engagement, operations design, and evaluation metrics
1. Clear statement of commitment from Leadership to the mission and vision of the cancer survivor program

2. Dedicated resources to the program, especially people to lead, manage, and have dedicated time to work in building the program, infrastructure, and data to plan and monitor progress

3. Stakeholder buy-in, which includes patients, clinicians, clinical leaders, administration, support staff, and community physicians.
Suggested Readings


Thank You!