Maximizing Cancer Survivorship: Focus on Transitions, Partnerships, and Collaborations

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Why do we need a transformation in cancer care?
Prevalence of cancer

• Partners in prevention

• Partners in survivorship
Prevalence of Cancer Risk Factors

- Obesity
- Physical inactivity
- Alcohol
- Sun exposure
- Aging population
- Exposures to carcinogens

- Tobacco
- Hormones
- Immunosuppression
- Radiation
- Radon
- Infectious agents
Other factors

• Cancer costs
• Health workforce shortages
Why consider primary care-oncology partnership?

• Strong primary care is the foundation for better health outcomes and reduced costs
• Can facilitate continuity through the transitions in care

• And
  • Growing numbers of cancer survivors
  • More than half of patients with cancer will live 5+ years!
Cancer survivorship

• Cancer survivorship begins at the time of diagnosis.
Estimated New Cancer Cases* in the US in 2018

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate</td>
<td>19%</td>
<td>30%</td>
</tr>
<tr>
<td>Lung &amp; bronchus</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Colon &amp; rectum</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>Urinary bladder</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Melanoma of skin</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Kidney &amp; renal pelvis</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Oral cavity &amp; pharynx</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Leukemia</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Liver &amp; intrahepatic bile duct</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>All other sites</td>
<td>22%</td>
<td>21%</td>
</tr>
</tbody>
</table>

*Excludes basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder.

*Age-adjusted to the 2000 US standard population and adjusted for delays in reporting.
Source: Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, 2017.
<table>
<thead>
<tr>
<th>Site</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>All sites*</td>
<td>1 in 3</td>
</tr>
<tr>
<td>Prostate</td>
<td>1 in 9</td>
</tr>
<tr>
<td>Lung &amp; bronchus</td>
<td>1 in 15</td>
</tr>
<tr>
<td>Colon &amp; rectum</td>
<td>1 in 22</td>
</tr>
<tr>
<td>Urinary bladder†</td>
<td>1 in 27</td>
</tr>
<tr>
<td>Melanoma of the skin‡</td>
<td>1 in 27</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>1 in 42</td>
</tr>
<tr>
<td>Kidney &amp; renal pelvis</td>
<td>1 in 48</td>
</tr>
<tr>
<td>Leukemia</td>
<td>1 in 56</td>
</tr>
<tr>
<td>Oral cavity &amp; pharynx</td>
<td>1 in 62</td>
</tr>
<tr>
<td>Pancreas</td>
<td>1 in 63</td>
</tr>
</tbody>
</table>

*All sites exclude basal cell and squamous cell skin cancers and in situ cancers except urinary bladder. †Includes invasive and in situ cancer cases. ‡Statistic for non-Hispanic whites.

# The Lifetime Probability of Developing Cancer for Females, 2012-2014

<table>
<thead>
<tr>
<th>Site</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>All sites*</td>
<td>1 in 3</td>
</tr>
<tr>
<td>Breast</td>
<td>1 in 8</td>
</tr>
<tr>
<td>Lung &amp; bronchus</td>
<td>1 in 17</td>
</tr>
<tr>
<td>Colon &amp; rectum</td>
<td>1 in 24</td>
</tr>
<tr>
<td>Uterine corpus</td>
<td>1 in 35</td>
</tr>
<tr>
<td>Melanoma of the skin†</td>
<td>1 in 42</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>1 in 54</td>
</tr>
<tr>
<td>Thyroid</td>
<td>1 in 56</td>
</tr>
<tr>
<td>Pancreas</td>
<td>1 in 65</td>
</tr>
<tr>
<td>Ovary</td>
<td>1 in 78</td>
</tr>
<tr>
<td>Leukemia</td>
<td>1 in 80</td>
</tr>
</tbody>
</table>

*All sites exclude basal cell and squamous cell skin cancers and in situ cancers except urinary bladder. †Statistic for non-Hispanic whites.
## Trends in Five-year Relative Survival Rates (%), 1975-2013

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All sites</td>
<td>49</td>
<td>55</td>
<td>69</td>
</tr>
<tr>
<td>Breast (female)</td>
<td>75</td>
<td>84</td>
<td>91</td>
</tr>
<tr>
<td>Colorectum</td>
<td>50</td>
<td>60</td>
<td>66</td>
</tr>
<tr>
<td>Leukemia</td>
<td>34</td>
<td>43</td>
<td>64</td>
</tr>
<tr>
<td>Lung &amp; bronchus</td>
<td>12</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Melanoma of the skin</td>
<td>82</td>
<td>88</td>
<td>94</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>47</td>
<td>51</td>
<td>73</td>
</tr>
<tr>
<td>Ovary</td>
<td>36</td>
<td>38</td>
<td>47</td>
</tr>
<tr>
<td>Pancreas</td>
<td>3</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Prostate</td>
<td>68</td>
<td>83</td>
<td>99</td>
</tr>
<tr>
<td>Urinary bladder</td>
<td>72</td>
<td>79</td>
<td>78</td>
</tr>
</tbody>
</table>


Source: Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, 2017.
### Five-year Relative Survival Rates (%) by Race, 2007-2013

<table>
<thead>
<tr>
<th>Site</th>
<th>White</th>
<th>Black</th>
<th>Absolute Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Sites</td>
<td>70</td>
<td>63</td>
<td>7</td>
</tr>
<tr>
<td>Breast (female)</td>
<td>92</td>
<td>83</td>
<td>9</td>
</tr>
<tr>
<td>Colorectum</td>
<td>67</td>
<td>59</td>
<td>8</td>
</tr>
<tr>
<td>Esophagus</td>
<td>22</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>74</td>
<td>67</td>
<td>7</td>
</tr>
<tr>
<td>Oral cavity &amp; pharynx</td>
<td>69</td>
<td>49</td>
<td>20</td>
</tr>
<tr>
<td>Ovary</td>
<td>46</td>
<td>39</td>
<td>7</td>
</tr>
<tr>
<td>Prostate</td>
<td>&gt;99</td>
<td>97</td>
<td>3</td>
</tr>
<tr>
<td>Urinary bladder</td>
<td>79</td>
<td>65</td>
<td>14</td>
</tr>
<tr>
<td>Uterine cervix</td>
<td>71</td>
<td>58</td>
<td>13</td>
</tr>
<tr>
<td>Uterine corpus</td>
<td>85</td>
<td>65</td>
<td>20</td>
</tr>
</tbody>
</table>

5-year relative survival rates based on patients diagnosed in the 9 oldest SEER registries from 2007 to 2013, all followed through 2014. Source: Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, 2017.
## Estimated Cancer Deaths in the US in 2018

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Males 323,630</th>
<th>Females 286,010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung &amp; bronchus</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>Prostate</td>
<td>9%</td>
<td>14%</td>
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<td>Pancreas</td>
<td>7%</td>
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<td>6%</td>
<td>5%</td>
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<tr>
<td>Leukemia</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Esophagus</td>
<td>4%</td>
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<td>4%</td>
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<td>Non-Hodgkin lymphoma</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Kidney &amp; renal pelvis</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>All other sites</td>
<td>24%</td>
<td>24%</td>
</tr>
</tbody>
</table>

- Lung & bronchus: 25% of males, 25% of females
- Breast: 14% of males, 8% of females
- Colon & rectum: 8% of males, 8% of females
- Pancreas: 7% of males, 7% of females
- Liver & intrahepatic bile duct: 6% of males, 5% of females
- Leukemia: 4% of males, 4% of females
- Esophagus: 4% of males, 4% of females
- Urinary bladder: 4% of males, 4% of females
- Non-Hodgkin lymphoma: 4% of males, 3% of females
- Kidney & renal pelvis: 3% of males, 3% of females
- All other sites: 24% of males, 24% of females

- Ovary: 5% of females
- Uterine corpus: 4% of females
- Leukemia: 4% of females
- Liver & intrahepatic bile duct: 3% of females
- Non-Hodgkin lymphoma: 3% of females
- Brain & other nervous system: 3% of females
- All other sites: 24% of females

Males

Both Sexes

Females

Rate per 100,000


*Age-adjusted to the 2000 US standard population.
As a society, we are in a “New Normal” in thinking about the care of the cancer survivor
What’s different about the cancer survivor?

- Short-term treatment sequelae
  - Symptom management
  - Risk of relapse

- Long-term treatment sequelae
  - Organ toxicities
  - Risk for second cancers
  - Risk of relapse
Care of the cancer survivor

• Is it oncology?
• Is it general adult primary care?
• Is it both?

• Getting to shared care models: integrated survivorship care
Benefits of primary care

• Receive greater high value cancer screening
• Improved patient experience
  • Improved physician communication

What is needed for integrated survivorship care?

- Continuous, coordinated, and comprehensive care for the survivor and the co-survivors
What is needed for continuous, coordinated, and comprehensive care?

Clinician engagement and communication
Education

• What needs to be known to care for the survivor?
  • Side effect management
  • Genomics
  • Risk management
  • Appropriate screening
  • Risk reduction
    • Lifestyle modification approaches
Logistics

• Consider: what are the best ways to integrate?
  • Co-practice setting
  • Patient navigation
  • Shared EHR
  • Shared care pathways
  • ECHO model
  • Shared patient care
Address survivors’ concerns

• Need for survivorship expertise
• Need continuity of care
How best to do this across the spectrum of cancer experience?
Spectrum of *integrated* cancer care

- Precision prevention
  - Genomic and biomarker information
  - Approaches that target cancer risk factors
- Improve access for specific population needs i.e. adolescents and young adults
  - Fertility preservation
  - Psychosocial needs
- Coordinated follow-up and survivorship care
- Integrate palliative-care services (WHO Public Health Strategy)
Innovative approaches

• Assess use of electronic clinical decision support: prevention, follow-up, and survivorship planning
• Facilitate earlier diagnosis and overall care through digital access
• Development of shared-decision making approaches
• Modified collaborative medical undergraduate and postgraduate education
• Implement team-based care: interprofessional education and practice
European Cancer Organisation Statement

Integrated Cancer Care: Bringing Primary Care and Secondary Care Together
ECCO Position Statement
May 2017

Acknowledgement: This position statement has been produced by the European CanCer Organisation (ECCO), a federation of 25 professional societies in oncology, in collaboration with the ECCO Patient Advisory Committee (PAC).

Through its 25 Member Societies - representing over 170 000 professionals - ECCO is the only multidisciplinary organisation that connects and responds to all stakeholders in oncology Europe-wide.

ECCO is a not-for-profit federation that exists to uphold the right of all European cancer patients to the best possible treatment and care, promoting interaction between all organisations involved in cancer at European level.

It does this by creating awareness of patients’ needs and wishes, encouraging progressive thinking in cancer policy, training and education and promoting European cancer research, prevention, diagnosis, treatment and quality care through the organisation of international multidisciplinary meetings.

Position Statement Summary

• A multidisciplinary and patient-centric approach to integrated cancer care
• Predefined coordination of the total care process
• Concerted attention to the improvement of communication between differing professionals and sectors involved in cancer care, including via IT investment and improvement, and integration of education
• The development of integration models that reflect the differing patient needs associated with different cancer types
Necessary elements for care integration

• Patient centricity
• Multidisciplinary/multiprofessional team based approach
• Pre-defined coordination of the total care process
• Clearly defined roles and responsibilities
• Good communication among all care providers
• Adequate education, clear guidelines/protocols on management/follow-up care
• Rapid access back to cancer care (improve diagnosis of recurrence)
• Adequate IT systems
Importance of integration

• The cancer diagnosis began in the primary care setting
• Cancer patients (70%) are living with multiple long term conditions, which adds complexity to the care pathway, and increases primary care dimensions
• Primary care roles in cancer are not related solely to prevention and diagnosis, but also in shared follow-up, survivorship care, palliative care, and end of life care
• Primary care practices increasingly collaborate in networks and federations to provide more cost-effective care at scale
Patients value primary care

• Turn to primary care physician with whom they’ve had a relationship to discuss:
  • Diagnosis
  • Treatment options
  • Side effect management

Benefits of primary care

• Offer continuity of care
• Address physical, psychological, and social needs
• Address the needs of co-survivors
• Address screening for late effects of therapy
  • Cardiotoxicity
  • Osteoporosis
• Address health and wellness
• Early detection of secondary cancers
• Offer reassurance, communication in a familiar setting
Early palliation

• WHO recommends integrated palliative care at diagnosis
• “Anticipatory care”
  • What can we anticipate of patient’s needs
  • How can we best address patient’s anticipated needs
Models of care may include

- Well-integrated electronic medical records
- Guidelines on follow-up integrated into EMR with a reminder system (decision support software)
- Electronic updates on new evidence automatically integrated into EMR
- Computer generated, disseminated and updated treatment summaries
Integrated cancer care

• Internationally recognized problem
• Important to meet the needs of the growing number of cancer survivors
• Address: fragmentation, communication, coordination of care
• Include patient and caregivers in solution
What about research?
Research Collaborations

• Screening Trials:
  • Tomosynthesis Mammographic Imaging Screening Trial: TMIST
    • N=165,000
    • 2017-2020 enrollment, follow-up to 2025
    • Randomized: 3-D or 2-D screening mammograms for five years
    • Screen: every year or every other year—based on her individual risks
    • Data: all mammogram results, all medical follow-up (more imaging, biopsy)
Consider the opportunities

• Improvements in care
• Facilitated transitions
• Better outcomes
Thank you!

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