Cancer Care Delivery in a Rapidly Changing Healthcare System

Session 9: Perspectives and Observations

Washington, DC
November 18, 2015

Kenneth W. Kizer, MD, MPH
Distinguished Professor, University of California Davis
Director, Institute for Population Health Improvement, UCDHS
Director, California Cancer Reporting and Epidemiologic Surveillance Program
What were common threads that ran through the presentations?

What were some key takeaways and what can we do with them?
Cancer will soon be the nation’s leading cause of death and most expensive health condition...
Observation: Our understanding of the biology of cancer is rapidly accelerating; cancer care is becoming ever more complex and will be in perpetual flux for the foreseeable future.

Action: We need to focus more on how best to disseminate and apply all the new information in a coordinated and systematic manner. We will need to reconcile what uniform care means as therapy becomes more individualized.
Observation: Finding the right balance between having equitable access to new technologies and having reasonable assurance that the technologies are effective and worth their cost will continue to be a challenge.

Action: Clinicians and investigators have to demonstrate how new technologies add value. Payers and regulators need to ensure transparency in coverage and approval processes and that decisions are reasoned.
Observation: Patient engagement in decision making is imperative but must be tailored to the individual patient.

Action: Better tools to inform and engage patients in their care are needed.

Caregivers need to get better at determining what is important to individual patients and their families.
Observation: The lessons learned from understanding the causes of and best ways to care for cancer may be broadly applicable.

Action: We need a systematic way of harvesting, adapting and applying the lessons learned from cancer science to other conditions.
Observation: Evaluating the quality of cancer care is driven too much by what we can measure and processes of care.

Action: We need to think further about it means to provide high quality cancer care and how we measure cancer care quality.

We need to better understand how quality of care performance measures drive the delivery of care and their possible unintended consequences.
Observation: Large organized delivery systems have the potential to clinically integrate care, manage population health, and provide better health care value; however, integrated care and integrated delivery system are not the same.

Action: We need to better understand the key elements of clinical integration and how it can be achieved in diverse settings.

Information fluidity is critical to clinical integration; and we need to continue to focus on how to best integrate information across the clinical care spectrum.
Observation: Cancer will be an increasingly high profile political issue.

Action: Clinicians need to better understand political processes.

We need better ways to inform and engage politicians.
Observation: The growing cost of cancer care is not sustainable.

Action: All manner of things to increase the value of cancer care.
Something we did not hear much about....

Population-based Cancer Registries
CALIFORNIA CANCER REGISTRY (CCR)

- Cancer made a mandatory reportable condition in 1985; statewide cancer registry implemented in 1988
- CCR now contains epidemiologic and clinical information on > 4 million cancer cases
- Has been used primarily for public health surveillance and to support research
- Since 2012, CCR managed by the CalCARES Program within the Institute for Population Health Improvement at UC Davis
How do we take the cancer registries to the next level?

- Need more timely data which needs less “cleaning” and curation →→ **must move to structured data submissions**
- Need better/easier access to other relevant data →→ **integrate with other public and private, as well as clinical, data bases (create “big data”)**
- Need to actively mine the linked data bases →→ **more resources for data analytics**
How do we take the cancer registries to the next level?

COMMENTARY

Leveraging State Cancer Registries to Measure and Improve the Quality of Cancer Care: A Potential Strategy for California and Beyond

Incidence rate of infant AML more than doubled (120%; 3.8% /yr)

No similarly large increase in any other infant cancer

No similar increase in the rate of AML in children or adults

AML is known to be associated with genetic conditions and genotoxic
Disparities in Stage at Diagnosis, Survival, and Quality of Cancer Care in California by Source of Health Insurance
### Distribution of Cancer Patients by Source of Health Insurance, California 2004-2012

<table>
<thead>
<tr>
<th>Payer</th>
<th>Breast</th>
<th>Colon</th>
<th>Rectum</th>
<th>Lung</th>
<th>Prostate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medi-Cal</td>
<td>21,490</td>
<td>5,548</td>
<td>2,234</td>
<td>9,671</td>
<td>5,164</td>
<td>44,017</td>
</tr>
<tr>
<td>Dual Eligible</td>
<td>9,521</td>
<td>7,036</td>
<td>1,892</td>
<td>12,637</td>
<td>8,108</td>
<td>39,194</td>
</tr>
<tr>
<td>Medicare</td>
<td>30,624</td>
<td>18,104</td>
<td>4,374</td>
<td>31,989</td>
<td>32,985</td>
<td>118,076</td>
</tr>
<tr>
<td>Private</td>
<td>183,315</td>
<td>59,033</td>
<td>18,675</td>
<td>83,494</td>
<td>125,432</td>
<td>469,949</td>
</tr>
<tr>
<td>DOD</td>
<td>1,816</td>
<td>463</td>
<td>173</td>
<td>847</td>
<td>1,445</td>
<td>4,744</td>
</tr>
<tr>
<td>VA</td>
<td>356</td>
<td>1688</td>
<td>575</td>
<td>3432</td>
<td>6346</td>
<td>12,397</td>
</tr>
<tr>
<td>Other</td>
<td>1,774</td>
<td>904</td>
<td>419</td>
<td>1,244</td>
<td>1,237</td>
<td>5,578</td>
</tr>
<tr>
<td>Uninsured</td>
<td>2,222</td>
<td>1,783</td>
<td>637</td>
<td>2,619</td>
<td>2,297</td>
<td>9,558</td>
</tr>
<tr>
<td>Unknown</td>
<td>9,472</td>
<td>3,388</td>
<td>1,355</td>
<td>9,887</td>
<td>15,029</td>
<td>39,131</td>
</tr>
<tr>
<td>Total</td>
<td>260,590</td>
<td>97,947</td>
<td>30,334</td>
<td>155,820</td>
<td>198,043</td>
<td>742,734</td>
</tr>
</tbody>
</table>
### Stage at Diagnosis - Breast

<table>
<thead>
<tr>
<th>Stage</th>
<th>Overall</th>
<th>DOD</th>
<th>Private</th>
<th>Medicare</th>
<th>VA</th>
<th>Dual Eligible</th>
<th>Uninsured</th>
<th>Medi-Cal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 0 or I</td>
<td>59%</td>
<td>62%</td>
<td>61%</td>
<td>60%</td>
<td>55%</td>
<td>50%</td>
<td>44%</td>
<td>38%</td>
</tr>
<tr>
<td>Stage II</td>
<td>27%</td>
<td>27%</td>
<td>27%</td>
<td>26%</td>
<td>31%</td>
<td>29%</td>
<td>29%</td>
<td>34%</td>
</tr>
<tr>
<td>Stage III</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage IV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### 5-Year Relative Survival - Breast

<table>
<thead>
<tr>
<th>Stage</th>
<th>Overall</th>
<th>DOD</th>
<th>Private</th>
<th>Medicare</th>
<th>VA</th>
<th>Dual Eligible</th>
<th>Uninsured</th>
<th>Medi-Cal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 0 or I</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>99%</td>
<td>97%</td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>Stage II</td>
<td></td>
<td>94%</td>
<td>95%</td>
<td>91%</td>
<td></td>
<td>90%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage III</td>
<td></td>
<td></td>
<td>76%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage IV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27%</td>
</tr>
</tbody>
</table>

---

*Survival could not be calculated due to small sample size.*
Stage at Diagnosis - Colon

5-Year Relative Survival - Colon
Median # of Days Between Dx and Initial Tx

**Breast**

- Overall: 27
- Private: 26
- Medicare: 27
- Dual Eligible: 27
- Uninsured: 27
- DOD: 29
- Medi-Cal: 32
- VA: 33

**Colon**

- Overall: 6
- Uninsured: 3
- Dual Eligible: 3
- DOD: 3
- Medi-Cal: 3
- Medicare: 4
- Private: 6
- VA: 13

**Rectum**

- Overall: 21
- Dual Eligible: 17
- Medicare: 19
- Private: 20
- DOD: 21
- Uninsured: 23
- Medi-Cal: 24
- VA: 31.5

**Lung**

- Overall: 28
- Uninsured: 22
- Medi-Cal: 24
- DOD: 25
- Private: 28
- Dual Eligible: 28
- Medicare: 29
- VA: 40
Percentage of breast cancer cases with ≥4 positive regional lymph nodes for which radiation was considered or administered following a mastectomy

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>56.8%</td>
</tr>
<tr>
<td>VA</td>
<td>93.8%</td>
</tr>
<tr>
<td>DOD</td>
<td>68.5%</td>
</tr>
<tr>
<td>Medi-Cal</td>
<td>58.1%</td>
</tr>
<tr>
<td>Private</td>
<td>57.6%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>50.0%</td>
</tr>
<tr>
<td>Medicare</td>
<td>40.6%</td>
</tr>
<tr>
<td>Dual Eligible</td>
<td>46.8%</td>
</tr>
</tbody>
</table>

(---: 95% confidence interval)
Percentage of AJCC Stage III Colon Cancer Cases for whom Adjuvant Chemotherapy was Considered or Administered

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>63.7%</td>
</tr>
<tr>
<td>DOD</td>
<td>83.0%</td>
</tr>
<tr>
<td>VA</td>
<td>82.4%</td>
</tr>
<tr>
<td>Medi-Cal</td>
<td>70.2%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>69.9%</td>
</tr>
<tr>
<td>Private</td>
<td>66.5%</td>
</tr>
<tr>
<td>Medicare</td>
<td>53.7%</td>
</tr>
<tr>
<td>Dual Eligible</td>
<td>51.1%</td>
</tr>
</tbody>
</table>

*Note: 95% confidence interval*
Percentage of AJCC Stage II or III Resected Colon Cancer Cases for whom at least 12 regional lymph nodes were Removed or Pathologically Examined

- Overall: 73.3%
- DOD: 84.3%
- Uninsured: 82.2%
- VA: 80.5%
- Medi-Cal: 74.3%
- Private: 74.0%
- Medicare: 71.7%
- Dual Eligible: 65.9%

*---*: 95% confidence interval
QUESTIONS/COMMENTS?