Bending the cost curve in cancer treatment: the ACA and beyond

Rena Conti, PhD
The University of Chicago
Departments of Pediatrics and Health Studies

The efforts of Conti were funded by a K07 CA138906 award from the National Cancer Institute to the University of Chicago.
Reform of cancer care delivery is imperative

• Why?

• How?
Cancer care costs rising faster than overall healthcare

Source: Blue Cross Blue Shield Association
Urgency rises as aging contributes to rising cancer incidence and prevalence.
2014 Growth Rates By Selected Sector, Before And After The Impact Of The Affordable Care Act

Cuckler G A et al. Health Aff 2013;32:1820-1831
The number of new molecular entities launched in 2013 is the highest in the last 10 years.

35% orphan drugs FDA approved 2009-2013 for cancer. Subramanian, Sharon, Conti Forthcoming 2015
Fundamental tradeoff:

Tension between the average value of innovation and its application for individual patients
The good...we are winning cancer wars
Cancer survival determinants

The bad...
Estimated use of chemotherapies on-label, off-label (National Comprehensive Cancer Network Drugs & Biologics Compendium [NCCN] supported), and off-label (NCCN unsupported).
Palliative care in addition to usual oncology care allowed lung cancer patients to live almost 3 months longer than those who got usual oncology care.

- Better understanding of prognosis
- Less IV chemo in last 60 days
- Less aggressive end of life care
- $2000 per person savings to insurers and society

Quality of care is not optimal, with short hospice stays.

<table>
<thead>
<tr>
<th>Process measure</th>
<th>N (%)</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seriously ill</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Use of ventilator</td>
<td>16 (26)</td>
<td>10%</td>
</tr>
<tr>
<td>Deceased</td>
<td>35 (57)</td>
<td></td>
</tr>
<tr>
<td><em>Any</em> goals of care discussion</td>
<td>26 (43)</td>
<td>95%</td>
</tr>
<tr>
<td>Advance directives on file</td>
<td>4 (7)</td>
<td>90%</td>
</tr>
<tr>
<td>Oncologist brought up Advance directives (Dow LA et al, JCO 28(2):299-304, 2010)</td>
<td>2/75 (1%)</td>
<td>100%</td>
</tr>
<tr>
<td>Death in hospital</td>
<td>21 (34)</td>
<td>10%</td>
</tr>
<tr>
<td>Discharged with hospice</td>
<td>14 (23)</td>
<td>60%</td>
</tr>
<tr>
<td>Chemo with 2 weeks of death, solid tumor patients</td>
<td>28-35%</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

Care patterns for cancer patients who died at a major medical center (see Dy S et al, JPM 14(4):451-7, 2011)
The ugly…
Big Pharma's Favorite Prescription: Higher Prices

By Robert Langreth | May 08, 2014

The Cost of Living

New drugs could extend cancer patients' lives—by days. At a cost of thousands and thousands of dollars. Prompting some doctors to refuse to use them.

By Stephen S. Hall | Published Oct 20, 2013

Avastin, $5,000/month; Zaltrap, $11,000/month; Yervoy, $39,000/month; Provenge, $93,000/course of treatment; Erbitux, $8,400/month; Gleevec, $92,000/year; Tasigna, $115,000/year; Sprycel, $123,000/year.

(Photo: Illustrations by Remie Geoffroi)
Monthly and Median Costs of Cancer Drugs at the Time of FDA Approval
1965 - 2013

Adapted from Bach (2009); Howard, Bach, Conti Forthcoming (2015)
Figure 2: Price per year of life gained versus approval date

The best fit line is: Price per year of life gained = $101,077 + $7,396 \times \text{Approval year}.
For purposes of display, we re-coded one value from $825,000 to $500,000.
RCT: randomized controlled trial. OS: Overall survival. PFS: Progression-free survival

Howard, Bach, Conti Forthcoming (2015)
### TABLE 2-4 Death Rates by Race in 2006-2010 from 18 SEER Geographic Areas

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Races</td>
<td>215.3 per 100,000 men</td>
<td>149.7 per 100,000 women</td>
</tr>
<tr>
<td>White</td>
<td>213.1 per 100,000 men</td>
<td>149.8 per 100,000 women</td>
</tr>
<tr>
<td>African American</td>
<td>276.6 per 100,000 men</td>
<td>171.2 per 100,000 women</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>132.4 per 100,000 men</td>
<td>92.1 per 100,000 women</td>
</tr>
<tr>
<td>American Indian/</td>
<td>191.0 per 100,000 men</td>
<td>139.0 per 100,000 women</td>
</tr>
<tr>
<td>Alaska Native</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>152.1 per 100,000 men</td>
<td>101.2 per 100,000 women</td>
</tr>
</tbody>
</table>

**NOTE:** SEER = Surveillance, Epidemiology, and End Results program.

**SOURCE:** NCI, 2013a.

insurance. Conversely, individuals with private insurance are more likely to receive recommended, appropriate cancer screening and treatment than are individuals who have Medicare and Medicaid insurance, and who are racial and ethnic minorities, or have low SES (ACS, 2008; Harlan et al., 2005).
Why reform?

• Cancer treatment spending is significant.
  – Outpaces all other medical care spending.
  – Use and prices are high and growing.

• Quality of cancer care is not what it should be.
  – Overuse, misuse, underuse coexist.
  – Racial disparities in mortality are unacceptable.
How do we improve access and cost-effectiveness while preserving incentives for innovation?
A closer look at current incentives

• How is value defined and rewarded now?
Outpatient cancer treatment paid by fee for service

- Increase use, RBRVUs, more revenue
- Patients: Many cancer patients have a poor prognosis and are facing imminent death.
- Providers: Guidelines/Malpractice; Significant practice revenue derived from chemo administration (Akscin et al. 2007; Towle et al 2011).
Pricing incentives are perverse

• Once a drug is FDA approved, insurance coverage virtually guaranteed.

• Patients are well insured at the margin.

• Copayment assistance is widely available.

• Value left to assess by MDs, Hospitals
  – No comparative effectiveness, costs in coverage.
  – Explicit prohibitions from formulary placement.
Oncologists remain in the driver’s seat

• Mounting pressure to mitigate practice risk.

Physician employment at hospitals jumps 34% in a decade
Analysis: Hospitals employ more than 25% of active physicians

Topics: Employment, Physician Issues

January 26, 2012

More doctors pushed into bankruptcy as revenue pressures build
Doctors blame shrinking reimbursements, increasing costs

Topics: Finance, Hospital-Physician Alignment, Physician Issues, Practice Management

April 09, 2013
Congress is targeting drug revenue

• After accounting for patient copays, Medicare payment for Part B drugs decreased from ASP+6% to ASP+4.3%

• ASCO IMPACT SURVEY:
  – 80%: Cuts affecting their practice
  – 50%: Send Medicare patients elsewhere for chemotherapy
  – 74%: Difficulty covering the costs of drugs
  – 22%: Have or are considering closing satellite/outreach clinics
The “How” of Reform
Provider and Commercial Insurer Efforts to Promote “Value”

• Promoting Adherence to Evidence-Based Medicine
  – ASCO
  – US Oncology, Wellpoint
The American Society of Clinical Oncology now recommends “…combined standard oncology care and palliative care should be considered early in the course of illness for any patient with metastatic cancer and/or high symptom burden.”

Change Drug Reimbursement Policies

• Keep current system, but make reimbursement more closely match acquisition costs.

• Change the locus of risk from oncologists to PBMs, GPOs, Insurers
  – Transfer Part B coverage to Part D.
  – Reintroduce CAP.
Move away from FFS towards episode based reimbursement

E&M (new patient)  
E&M (established patient)  
Consultations  
Chemotherapy administration / therapeutic injections / hydration  

New patient payment  
Treatment month payment  
Transition of treatment payment  
Non-treatment month payment

• Quality Measures  
• Pathways  
• Resource Utilization  
• Clinical Trial Participation
Change reimbursement to reward launch of valuable new drugs

- Reimbursement defined by disease segment/level of evidence.
- Additional manufacturer payment for significant advances.
Value-based Reform
Each Stakeholder Has a Role

• Providers: Be willing to try innovative ways to responsibly control costs while improving quality, give up revenue from drugs.

• Payers: Assure best use of limited resources through the development of innovative benefits and reimbursement.

• Manufacturers: Find ways to innovate in the most cost-effective; try out novel reimbursement schemes linked to “value”; continue providing patient assistance.
Acknowledgements and Disclaimer

• Support from National Cancer Institute K07 CA138906 grant to the University of Chicago.
• Grateful for the generosity of IMS Health Institute for Healthcare Informatics.
• Findings and opinions expressed are those of Conti, and not necessarily those of ASCO, the NCI, IMS Health, or the University of Chicago.
Promote generic cancer drug use

Use generic imatinib for incident chronic phase CML patients.
Thank you
If we insist on deep list price concessions.
If we insist on deep list price concessions - there will be effects on investment.

**Figure E2.** New systemic antibacterial agents with a new target or new mechanism of action and *in vitro* activity based on actual data (dark colour bars) or assumed *in vitro* activity based on class properties or mechanisms of action (light colour bars) against the selected bacteria (best-case scenario), by phase of development (n=15).

a. Gram-positive bacteria

b. Gram-negative bacteria*