Tell it like it is: improving access to better quality cancer care and better quality of life.

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Disclosure

• I have no relevant commercial interest to disclose.
• I will not mention any off label uses, or brand names unless there is no alternative.
• I have significant but non-commercial interests with ASCO, C-Change, C-TAC, and AHRQ to choose topics for comparative effectiveness research.
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Objectives

1. Recognizing the problem:
   - Care is not optimal
   - Costs are rising at an unsustainable rate
   - Value is missing in some of our spending

2. Practical ways to improve health, quality of care, and value
   - Communication: “What is important to you?”
   - Redesign clinical pathways to incorporate cost and value; pathways, prompts, best practices
   - Audit current patterns of care for under- and over-use

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Are we getting good value from cancer treatment?

The decline in mortality is continuing but small compared to the decline in heart disease.

Quality of care is not optimal

End of life care processes among cancer patients who died at a major medical center, Summer 2011 (see Dy S et al, JPM 2011)

<table>
<thead>
<tr>
<th>Process measure</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seriously ill</td>
<td>61</td>
</tr>
<tr>
<td>Use of ventilator</td>
<td>16 (26)</td>
</tr>
<tr>
<td>Deceased</td>
<td>35 (57)</td>
</tr>
<tr>
<td>Any goals of care discussion</td>
<td>26 (43)</td>
</tr>
<tr>
<td>Advance directives on file</td>
<td>4 (7)</td>
</tr>
<tr>
<td>Death in hospital</td>
<td>21 (34)</td>
</tr>
<tr>
<td>Discharged with hospice</td>
<td>14 (23)</td>
</tr>
<tr>
<td>Chemo with 2 weeks of death, solid tumor patients</td>
<td>28-35%</td>
</tr>
</tbody>
</table>

Doctors do not follow the NCCN guidelines.

Are Doctors Following the Rules?
An analysis by UnitedHealthcare shows that many doctors are straying from cancer-treatment guidelines developed by the National Comprehensive Cancer Network. Some examples:

**NON-COMPLIANCE RATE**

- **17%**
- **61%**
- **31%**
- **31%**
- **24%**

**DISEASE**
- Breast Cancer
- Colon Cancer
- Colon Cancer
- Lung Cancer
- Lung Cancer

**RULE**
- Patients with a genetic marker indicating a favorable response to the drug Herceptin should receive that drug.
- Patients should receive ultrasound prior to treatment in order to determine how far the tumor has spread and to plan for treatment.
- Patients with early-stage colon cancer should receive chemotherapy or radiation after surgery.
- Patients should receive pulmonary-function testing before treatment.
- Patients should be given Avastin only if they meet the following criteria: Non-squamous cancers only and no history of coughing up blood.

Source: UnitedHealthcare
Medical care costs 2-fold more in the US than any other country

OECD report, 2011

Cancer care costs are rising exponentially
- $173 billion at 2% growth rate, but currently >3%

Insurance premiums are rising and fewer people can afford them

- Insurance premiums **doubled**, 2000-10 (Kaiser Fndn).
- Patient responsibility quadrupled to > $4000
- 9% increase **last year**

Medical bankruptcies are on the rise

- 62% of these are classified as “medical” (Himmelstein D, et al, Am J Med 2009)
- ~940,000 “medical bankruptcies” in 2011
- 8% of NSCLC patients bankrupt within 5 years of diagnosis (Ramsey SD, et al. Proc ASCO 2011)
Little relationship between drug EFFECTIVENESS and PRICE

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Wholesale Price per 30 day cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt;$10,000</td>
</tr>
<tr>
<td></td>
<td>$5,000 to $10,000</td>
</tr>
<tr>
<td></td>
<td>$3,000-$5,000</td>
</tr>
<tr>
<td></td>
<td>$1,000 to 3,000</td>
</tr>
<tr>
<td>Breast Cancer</td>
<td>Bevacizumab</td>
</tr>
<tr>
<td></td>
<td>$10,000</td>
</tr>
<tr>
<td></td>
<td>ixabepilone (Ixempra)</td>
</tr>
<tr>
<td></td>
<td>Lapatinib (Tykerb)</td>
</tr>
<tr>
<td>Chronic Leukemias</td>
<td>Nilotinib, Dasatinib</td>
</tr>
<tr>
<td></td>
<td>Bendamustine</td>
</tr>
<tr>
<td>Lung</td>
<td>Docetaxel (Patent 2010)</td>
</tr>
<tr>
<td></td>
<td>Capecitabine (Xeloda)</td>
</tr>
<tr>
<td></td>
<td>Paclitaxel (generic)</td>
</tr>
<tr>
<td></td>
<td>nab-paclitaxel</td>
</tr>
<tr>
<td></td>
<td>Trastuzumab</td>
</tr>
<tr>
<td>Melanoma</td>
<td>Ipilimumab</td>
</tr>
<tr>
<td></td>
<td>Yervoy $30,000</td>
</tr>
<tr>
<td></td>
<td>Vemurafenib (Zelvoraf) $9400</td>
</tr>
<tr>
<td>Renal</td>
<td>Sorafenib, Sunitinib</td>
</tr>
<tr>
<td></td>
<td>Temsirolimus</td>
</tr>
<tr>
<td>Other Cancers</td>
<td>Lenalidomide Brentuximab (Adcetris) $25,000</td>
</tr>
<tr>
<td></td>
<td>Nelarabine</td>
</tr>
<tr>
<td>Colon</td>
<td>Panitumumab</td>
</tr>
<tr>
<td>Various</td>
<td>Sipuleucel-T Provenge $93,000x1</td>
</tr>
<tr>
<td></td>
<td>Bevacizumab</td>
</tr>
</tbody>
</table>

Medical care cost increases are unsustainable, but some of them are under our control and fixable.

- About 25% of all Medicare funds are spent in the last year of life, and over 9% (over $50 billion) in the last MONTH of life (Riley and Lubitz, Health Services Research 45.2 (2010): 565-76.)
- As much as 30% of care is not evidence-based and does not add value. (Schnipper L, et al. JCO, in press.)
- Much of the pattern of care is under our control including imaging, chemotherapy choices, surveillance after curative care, integration of palliative care, use of hospice, and avoiding chemotherapy and hospitalization near the end of life. (Smith and Hillner NEJM 2011)
Oncology has identifiable cost targets

Services and salaries:
- Salaries - 2010 MGMA: ↑4% to median $381,992 (PCPs $202,392)
- 50+% from drug sales “buy and bill” vs. “invoice pricing”
- Health care providers who own services use them more - pharmacy, radiology, lab testing
- Some duties poorly reimbursed, if at all
  - Time spent on clinical trial referral
  - P/MOLST "Physicians Orders for Life Sustaining Treatment"
  - Advance Medical Directives
  - Managing unrealistic expectations
  - Family conferences – billing code, no reimbursement.


But it is not just us
- CMMI Medical Innovations
Table 1: Five changes in oncologist behavior that will bend the cancer cost curve

1. Target surveillance procedures to those where there is proof or high likelihood of benefit.
2. For most solid tumors limit 2\textsuperscript{nd} line and for all 3\textsuperscript{rd} line for metastatic treatments to sequential mono-therapies.
3. For patients with cancer that has progressed on treatment limit future active therapy to patients with good performance status.
4. Dose reduction can replace white-cell stimulating factors in metastatic solid cancers.
5. For patients not responding to three consecutive regimens further cancer directed therapy should be limited to clinical trials.


Table 2: Five Attitudes that require acknowledgement and change

1. Acknowledge that we drive the costs of care by what we do and not do.
2. Both doctors and patients need more realistic expectations.
3. Realign compensation and rebalance cognitive services.
5. Accept the need for cost-effectiveness analysis and some limits on care.

The world is changing, since the current system can’t hold.

Expectations:
1. More people insured, eventually.
2. Higher co-pays, deductibles, exclusions.
3. More people moving back and forth from low-cost insurers such as Medicaid.
4. MUCH more attention to value, i.e. lower cost unless there are provable better results at a reasonable cost.
5. More restrictions on the types of care allowed.
6. More “networks” and “Medical homes”
7. Eventually, cost factored into FDA approval and CMMS reimbursement.

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Definition

“Palliative care is specialized medical care for people with serious illnesses. This type of care is focused on providing patients with relief from the symptoms, pain, and stress of a serious illness - whatever the diagnosis.

The goal is to improve quality of life for both the patient and the family. Palliative care is provided by a team of doctors, nurses, and other specialists who work with a patient's other doctors to provide an extra layer of support.

Palliative care is appropriate at any age and at any stage in a serious illness, and can be provided together with curative treatment.”

– Diane Meier, MD, Director, Center to Advance Palliative Care, July 1, 2011

Palliative care is open and honest communication, medically appropriate goal setting, and symptom control.

Why

Lots of good reasons to integrate palliative and hospice care care.

• It is good and sometimes better clinical care.
• It may allow people to live longer, not the opposite.
• Hospitals are full, often of dying people who don’t really want to be there.
• We need some rational ways to improve care at a cost we can afford.
• *PC offers the trifecta of better quality of life, and better quality of care, at less cost.*
The Growth of Hospital Palliative Care Teams suggests added value

AHA Annual Hospital Survey, 2010

Cancer patient symptoms are improved by PC consultation or transfer

Memorial Symptom Assessment Scale, Condensed
30 pts with at least 2 consult days and symptoms >0
Khatcheressian J, et al. Oncology September 2005
Better integrated end of life care allows people to live longer and better.

– Planning for a good death won’t make death happen. Not planning for a good death allows a bad death to happen. (Harrington SE, Smith TJ. JAMA 2008)
– People who have discussions WITH THEIR DOCTORS about impending death have less worry, less depression, better QOL, use hospice more and longer, less CPR, better caregiver QOL. Wright A, et al. JAMA 2008;8;300(14):1665-73.
– Yet, only 37% of patients ever have a discussion with their oncologists about the time course of their dying.
– Why?

Why we do not do this, and why it matters

1. People do not want to know. T F
   • 90% or more of people want to know about curability (which we generally say).
   • Studies in U.S., England, Netherlands, Australia show people want more....
   • Prognosis
     – What the future will hold
     – What will happen to them
     – To date, always associated with more trust and shared decision making
Why we do not do this, and why it matters

1. **People do not want to know. T  F**
   - 60% of us prefer not to have “hard conversations” until “there are no more treatment options left”
     - “Do not resuscitate”
     - Advanced medical directors
     - Use of hospice
   - Half of all NSCLC patients have had NO discussion with any of their doctors about hospice 2 months before they die.

2. **We can’t really predict or prognosticate. T  F**
   - False. We can predict within a range, but don’t like to give these numbers to patients. “Necessary collusion.”
   - We overestimate overall by 34%; in referrals to hospice we overestimate by 5.1!
   - HOW we communicate is as important as WHAT we communicate. But we must give people information so they can plan.
   - [www.eprognosis.org](http://www.eprognosis.org)
Why we do not do this, and why it matters

3. It will make people depressed. T F
332 cancer patients at 5 centers, all of whom died.
37.0% of patients reported having end-of-life discussions:
• not associated with higher rates of major depressive disorder or more worry
• More aggressive medical care associated with worse patient quality of care ($P=.01$) and
• higher risk of major depressive disorder in bereaved caregivers, adjusted OR, 3.37.

People who had EOL discussions
• lower rates of ventilation (1.6% vs 11.0%; adjusted OR, 0.26)
• resuscitation (0.8% vs 6.7%; adjusted OR, 0.16)
• ICU admission (4.1% vs 12.4%; OR, 0.35),
• earlier hospice enrollment (65.6% vs 44.5%; OR, 1.65;).
  And
• Longer hospice stays associated with better patient quality of life ($P=.01$).
• And better caregiver quality of life at follow-up ($P=.001$).
Why we do not do this, and why it matters

4. Involvement of hospice or palliative care will reduce survival. T  F

People who use hospice for even one day live longer.

Matched cohort study: hospice use or not. 4493 Medicare patients, 2095 (47%) received hospice care for at least one day, 1999

<table>
<thead>
<tr>
<th>Disease</th>
<th>Added survival</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CHF</td>
<td>+ 81 days, P = 0.0540</td>
<td></td>
</tr>
<tr>
<td>Lung cancer</td>
<td>+ 39 days, P &lt; 0.0001</td>
<td></td>
</tr>
<tr>
<td>Pancreatic cancer</td>
<td>+ 21 days, P = 0.0102</td>
<td></td>
</tr>
<tr>
<td>Colon cancer</td>
<td>+ 33 days, P = 0.0792</td>
<td></td>
</tr>
<tr>
<td>Breast</td>
<td>+ 12 days, P = 0.6136</td>
<td></td>
</tr>
<tr>
<td>Prostate</td>
<td>+ 4 days, P = 0.8266</td>
<td></td>
</tr>
</tbody>
</table>


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.


Longer and better survival
- Better understanding of prognosis
- And goals of care
- Less IV chemo in last 60 days
- Less aggressive end of life care
- More and longer use of hospice
Why we do not do this and why it matters.

5. It is not culturally sensitive to discuss dying and end of life choices. T   F
   • At least 50% of all people want to discuss
   • May have some cultural overtones
     – Tell the oldest son - “That was my Dad’s generation”
     – Tell the family first - “She/he will give up”
   • No stereotype is ever 100% correct, so....
   • ASK – what do you want to know about your illness?
   • What do you know about your illness?
   • TELL – give understandable information
   • ASK - what is your understanding of your situation?

Why we do not do this and why it matters.

6. It will take away hope. T   F
   • Hope is maintained if realistic prognostic information is given along with transition prompts.
     – Smith TJ, et al. Oncology (Williston Park), 2010
     – Harris JC, DeAngelis CD. JAMA. 2008 Dec 24;300(24):2919-20
   • Avoiding discussions reduces hope.
7. We do not like to have these discussions, and they are hard on us. T  F


• There may be ways to increase our skills, satisfaction and resilience with mindfulness training. Krasner MS, et al. JAMA. 2009 Sep 23;302(12):1284-93.

Why we do not do this and why it matters.

8. There are not enough of us. T  F

• 40% shortage of ONCs estimated
  – 1 oncologist for 141 cancer patients
  – Pall Care suggested as “extenders” but 1 PC MD for each 1200 seriously ill patients in US

• Pall Care MDs: 4,400 now, estimated 6-12,000 MDs needed

• Pall Care APNs: Estimated 6-30,000 APNs needed

• We need more MD and APN PC training programs.
The American Society of Clinical Oncology now recommends concurrent palliative care for seriously ill cancer patients – at the beginning

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The latest version is at http://jco.ascopubs.org/cgi/doi/10.1200/JCO.2011.38.5161

JOURNAL OF CLINICAL ONCOLOGY ASCO SPECIAL ARTICLE

American Society of Clinical Oncology Provisional Clinical Opinion: The Integration of Palliative Care into Standard Oncology Care
Thomas J. Smith, Sarah Tamin, Erin E. Alesi, Amy P. Abernethy, Tracy A. Balboni, Ethan M. Bach, Beth R. Ferris, Matt Lavoie, Diane E. Meier, Judith A. Paice, Jeffrey M. Peppercorn, Mark Somerfield, Ellen Stovall, and Jamie H. Von Roenn

“Therefore, it is the Panel's expert consensus that 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.”

Integrated palliative care is one way to improve cancer care, allow people to live as long and as well as they can, and honor patient and family wishes -- at a cost society can afford.

Multiple randomized clinical trials show:
• Equal or better overall survival.
• No evidence of harm.
• Usually, better better patient and family satisfaction
• Less depression, less caregiver burden and depression afterwards.
• No increase in costs, and Kaiser RCTs show about $5000 per patient savings. [Reduced ICU use at end of life.]
• Recommendation: concurrent oncology and palliative care to improve quality of life, quality of care.
Lower Cost Per Day After Transfer To Palliative Care - 60% less cost than patients not seen by PC

$7000 less in last 5 days of life if PC involved.
With equal survival.
And better symptom control.
Impact of IDPCTs on Costs in Kaiser Permanente System
Randomized clinical trials.
Net savings of $5-7000/person, now standard in all KP markets.

IF PC involved, $5000 to $7000 saved per admission and in total costs.
Morrison S, et al. Health Affairs, 2011. Compared matched Medicaid admissions at 4 hospitals in NY, PC or no PC. IF PC involved, 30% vs. 3% appropriate pts discharged to hospice. $6900 savings per admission if PC involved.

Aetna’s Compassionate Care Program

- Care management program for Medicare Advantage and commercially insured begun 2004.
- Nurse care managers trained to manage patients with terminal illnesses.
- Cases were identified hospitalizations, claims, and referrals.
- Care managers completed a comprehensive assessment of the patient’s needs by telephone and consulted with the patient, physician, and patient’s family.
- Provided education and support, gave assistance with pain medications and psychosocial needs, and helped ensure that advance directives were offered.
- For Medicare members …expectancy of six or less months, and required to stop all curative therapy efforts before entering hospice.
- In an “enhanced hospice access” arm of the study, to twelve months, and members could access hospice benefits concurrently.
Aetna’s Compassionate Care Program maintained survival but doubled hospice use. Use transition programs alongside usual oncology care. (Spettell CM, et al. J Palliat Med. 2009 Sep;12(9):827-32.)

Hospice use increased
- Enrollees doubled from 31% to 72%, p<0.0001
- Hospice days increased 15.9 to 28.6, p<.0001


IP days reduced
- Medicare 2309 vs. 15,217 per thousand members
  - saves $32 million per 1000 members @ $2500/day

- ICU days per thousand member
  - Medicare CM Group; 1189 vs. 9840
  - saves $30 million per 1000 members, @ $3500/day

- Overall, at least 22% savings in last year of life.
Why has this not “caught fire” and spread across the health care system?

1. Work force shortage. Have 4400 HPM physicians, need 4487-10,810 FTEs. 90 fellowship slots.

2. Cost avoidance versus profit.

3. Financial: cost savings accrue to only one part of financial chain, not vertically integrated like HMOs. Hospitals depend on admissions.


5. Disparities: Minorities use hospice less than Caucasians. Some preference for “aggressive care”, but minorities are 5-fold less likely to know about hospice and 7-fold less likely to know about palliative care. (Matsuyama and Smith, Journal of Hospice and Palliative Nursing 2011)

6. Inability or unwillingness to identify patients who could benefit.
   - 688 patients who died in the hospital, 60% met hospice criteria (life limiting illness, 50% chance of not surviving 6 months) on their PENULTIMATE admission, 14% of patients had any discussion of hospice. (Freund K et al. Journal of Hospital Medicine 2011)

US Oncology pathways preserve survival, reduce cost by 35% in lung cancer by evidence-based choices, better communication.

For NSCLC, equal results, less toxicity, less cost. Chemo beyond 3rd line off pathway.

U S Oncology pathways preserve survival, reduce cost by 35% in lung cancer by evidence-based choices, better communication.

Communication: Discussion of ADs DPMA, hospice in first visits

Generics
Limit to 3 rounds
Of chemo

Equal survival
Less chemo
Less hospital
More hospice
2x↑ LOS, use

For NSCLC, equal results, less toxicity, less cost. Chemo beyond 3rd line off pathway.

U S Oncology pathways preserve survival, reduce cost by 34% in metastatic colon cancer.

<table>
<thead>
<tr>
<th>Pathway status</th>
<th>Overall Survival (mos)</th>
<th>Chemo Cost ($)</th>
<th>Total Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients (n=1,430)</td>
<td>0.62</td>
<td>0.64</td>
<td>0.53</td>
</tr>
<tr>
<td>On pathway (n=1,056)</td>
<td>0.62</td>
<td>0.66</td>
<td>0.53</td>
</tr>
<tr>
<td>Off pathway (n=314)</td>
<td>0.80</td>
<td>0.64</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Table 1: Impact of pathways in colon cancer

Developing:SP45-52. and J Oncol Pract. 2011 May;7(3 Suppl):52s-9s.
Make our pathways be based on the evidence for types of Rx, and number of “lines” of chemo.

17 drugs in NCCN “pathway”
Price range from $60 to $10,000 a month
One of the most expensive combinations, Carbo+ Alimta+ Avastin (CAA) does not have Phase III evidence, yet.

1. “SPIKE$” protocol – get the $$$ figures, then how to have the conversation.
2. Track $$ by doctor prescribing.

Change our standards of care to incorporate national guidelines and best practices about palliative care.

Communication: Appoint someone in the office to discuss ADs, DPMA, hospice in first 3 visits – and document.

Limit to 3 rounds Of chemo – follow our own guidelines.
Give feedback by doctor.

Insist on hospice referral with 3-6 months to live (not 2 weeks)
Audit referrals with < 14 days, feedback to physician
Use the EMR for better practices with prompts, reminders, sections

Must meet billing requirements but include
1. CC, HPI, ROS, etc. to include Symptom Assessment Scale (MSAS-C, etc.)
2. Prior Rx
   1. Chemo #1
   2. Chemo #2
   3. Radiation T9-12
3. Performance status (Pall Perf Status highly predictive) 3
4. Code status ___ Full ___ DNR ___ Not discussed, discuss on ____________
5. AMD Yes No On File
6. MOLST Yes No On File
7. Goal of treatment: cure long term short term palliative
8. Problem list with diagnostic statements (affects Risk of Mortality)
   1. NSCLC
   2. Brain met, controlled...prompts PC consult
   3. Bone met 5. dyspnea
   4. Anemia 6. malnutrition, mild
9. Plan
   1. chemo #3...which PROMPTS PC consult
   2. Hospice informational visit
   3. Palliative care re-referral

This requires a standard template, but will reduce variance, increase AMD discussion, etc.

Just like the record keeping we do on protocol patients.

May increase Severity of illness Risk of Mortality

QOPI works to reduce overuse: Oncologists who receive feedback give less chemo at the end of life.
Blayney D, et al. JCO 2009

QOPI Instituted; doctors made aware of problem

Chemo in last 2 weeks of life
What can oncologists do today?

- Establish working relationships with local hospice and palliative care providers – just like our usual partners.
- Hospice information visit 3-6 months before death.
- ASK people how much they want to know, TELL, then ASK.
- About goals of care. Prognosis (get permission.)
- “What is important to you?”
- Monitor important QOPI metrics
  - Referrals and length of stay in hospice
  - How many patients get therapy within 2 and 4 weeks of death
  - Hypofractionation use, when appropriate.

Conclusions

Quality and cost problems are very real, and getting worse. Oncologists can play a large role in the national discussion.

The solutions include
- use of treatments based on the evidence
- better end of life coordination – discussion!
- more standardized practice.
- more auditing with the intent of practice change.

Consequences include
- sustainable growth
- possibly more equitable care
- better quality.