

## Cost Stewardship in the Face of Uncertainty:

Lessons from the ACP High Value Care Curriculum

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## Cost Stewardship in the Face of Uncertainty

- I. The Arguments for Cost Consciousness
- II. Uncertainty and the Costs of Healthcare
- III. Lessons from the ACP/AAIM Curriculum

## The Arguments for Cost Consciousness

- Altruistic Arguments:
- Less Altruistic Arguments:
- Patriotic
- Population Health
- Moral/Theological
- Patient Centered

## The Patriotic Argument for Cost Consciousness

- Healthcare spending is at 17% of U.S. GDP and is projected to reach 20% in the very near future.
- Spending at this level could potentially bankrupt the federal government.

## The Patriotic Argument for Cost Consciousness

- 5% of the GDP is spent specifically on medical tests and procedures that do not improve outcome.
- This represents a sum of about 750 billion dollars a year
- Physicians are responsible for 87% of this wasteful spending



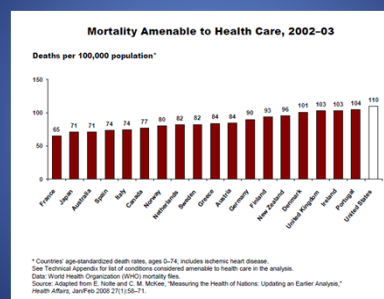
## The Population Health Argument for Cost Consciousness

- In 2008 we in the United States spent more than \$7,500 per person on one years worth of health care
- This figure is between 2 and 3 times that of many other industrial countries
- Despite this monetary investment we lag behind other countries in many key health measures

## The Population Health Argument for Cost Consciousness



## The Population Health Argument for Cost Consciousness



## The Population Health Argument for Cost Consciousness



## The Arguments for Cost Consciousness

- Altruistic Arguments:
- Less Altruistic Arguments:
- Patriotic
- Population Health
- Moral/Theological

## The Moral/Theological Argument



## The Moral/Theological Argument

- “Though Shalt Not Waste”
- The principle is rooted in Biblical Law  
Deuteronomy 20:19–20

## The Arguments for Cost Consciousness

- Altruistic Arguments:
  - Patriotic
  - Population Health
  - Moral/Theological
  - Patient Centered
- Less Altruistic Arguments:

## The Patient Centered Argument for Cost Consciousness

- Cost affects access
- Cost affects compliance
- Cost affects health decisions

## An Uninsured Patient’s Perspective

- Julian McCullough, comedian
- Recorded at “Told,” a storytelling show in New York City
- “How much? No health insurance, 7 days in the hospital, ... appendectomy:”

\$45,000



## The Arguments for Cost Consciousness

- Altruistic Arguments:
- Less Altruistic Arguments:
- Patriotic
- Population Health
- Moral/Theological
- Patient Centered



## The Less Altruistic Arguments for Cost Consciousness

- In the not so distant future it will be part of your job description and compensation package.
- It is going to be on the boards!!!

## New Health Care Reimbursement Models

- Accountable Care Organizations (ACO)
- Bundle Based Payments



- Physician Hospital Organizations

2012 Internal Medicine In-Training Examination®  
Examinee Performance Report

Name: [REDACTED] Program: 301455

This report is provided to help you determine areas of strength and weakness as measured by the IM-ITE. Your total percent correct score, PGY level of training, and percentile rank within your PGY level are presented below. Also presented for each content area are the percentage of items you answered correctly, the mean percentage for candidates in your PGY level, the standard deviation around that mean, and the percentile rank of your scores among all the scores within your PGY level. For more information, refer to the accompanying Performance Interpretation Guidelines sheet. If your PGY level is other than PGY 1, PGY 2, PGY 3 or PGY 4, or your field of study is not Internal Medicine, your percentile rank will be based on the PGY 2 group.

Content Area	Your Percentage of Correct Items	Mean Percentage of Correct Items	Std. Deviation Around Mean	Your Percentile
Cardiology	87	68	11	96
Endocrinology	95	73	12	97
Gastroenterology	85	66	13	91
General Internal Medicine	80	71	10	78
Geriatrics	71	65	14	64
Hematology/Oncology	86	66	12	95
Infectious Diseases	78	65	13	81
Nephrology	79	62	14	83
Neurology	79	69	15	63
Pulmonology	76	70	11	62
Rheumatology	75	61	13	81
<b>High Value Care**</b>	78	64	12	87

Total Percent Correct Score: 82%  
Percentile Rank by PGY Level: 96  
PGY Level: 3

Listed below are items that you answered incorrectly. Item numbers are grouped by content area. Questions with double asterisks are also within the High Value Care content area. To view the learning objective of the item, refer to the document "Internal Medicine In-Training Examination Educational Objectives." (<http://ccsa.ahsne.org/ajip/ehc/objectives/objectives>)

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## Provider Cost Transparency Alone Has No Impact on Inpatient Imaging Utilization

J Am Coll Radiol. 2013 Feb 15(2):108-13. doi: 10.1016/j.jacr.2012.06.000. Epub 2012 Dec 28.

**Provider cost transparency alone has no impact on inpatient imaging utilization.**

Quares DA, Feldman LS, Lesh JS, Bostrom DJ.

Ronald H. Morgan Department of Radiology and Radiological Science, The Johns Hopkins University School of Medicine, Baltimore, Maryland 21287, USA. dquares@jhmi.edu

### Abstract

**PURPOSE:** The aim of this study was to determine whether presenting providers with cost information at the point of order entry significantly influences imaging utilization.

**METHODS:** Using data from fiscal year 2007, the 10 most frequently ordered imaging tests were identified. Five of these were randomly assigned to the active cost display group and 5 to the control group. During a 6-month baseline period from November 10, 2008, to May 9, 2009, no costs were displayed. During a seasonally matched intervention period from November 10, 2009, to May 9, 2010, costs were displayed only for tests in the active group. At the conclusion of the study, the radiology information system was queried to determine the number of orders executed for all tests during both periods. The main outcome measure was the mean relative utilization change between the control and intervention periods for the active group vs the control group. An additional measure was the correlation between test cost and utilization change in the active group vs the control group.

**RESULTS:** The mean utilization change was  $+2.8 \pm 4.4\%$  for the active group and  $-3.0 \pm 5.5\%$  for the control group, with no significant difference between the two groups ( $P = .10$ , Student's t-test). There was also no significant difference in the correlation between test cost and utilization change for the active group vs the control group ( $P = .25$ , Fisher's z-test). On the basis of the observed standard deviations, this study had 90% power to detect an 11.6% difference in mean relative utilization change between groups.

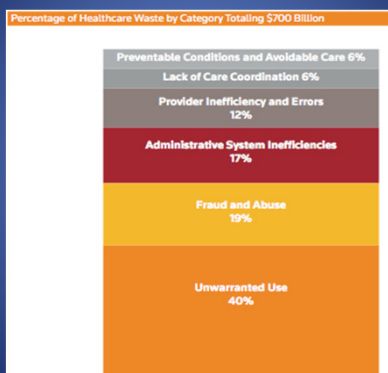
**CONCLUSIONS:** Provider cost transparency alone does not significantly influence inpatient imaging utilization.

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PMID: 23273674 (PubMed - indexed for MEDLINE)

- Knowledge of cost alone may not be enough to change physician practice patterns

## Healthcare Waste



- Knowledge of cost alone may not be enough to change physician practice patterns

## Dr. Good Memory Story #1



### Back Pain and Cancer

- When Dr. Good Memory was an intern he had a pt with breast ca who had back pain and LE weakness.
- The patient had a cord compression and Dr. Good Memory didn't catch it.
- He now orders imaging or empiric treatment for all patients with this constellation of symptoms.

## Dr. Good Memory Story #2



### New Headache

- When Dr. Good Memory was a 3<sup>rd</sup> year resident practicing in clinic he had a young female who complained of a disabling, unilateral, pounding, HA with no neurological symptoms and normal exam.
- She was sent home with analgesics, but months later it was determined that she had CNS lymphoma.
- Dr Good Memory learned from this experience to order a screening head CT for all new patients with HA.

- In both of the above scenarios knowledge of the cost of testing is not going to change Dr. Good Memory's plan as he believes he is doing what is right for the patient.

## Uncertainty and Cost Stewardship

- If Dr. Good Memory sees 3 new HA patients a month, he would have seen 1,080 new HA patients in a 30 year career
- At \$326/CT he will have spent \$352,080 during his career on this practice
- This amounts to \$ 11,736/year

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## Lesson #1

There is always a down side!!!

Balance Benefits with Harms and Costs.



## Lesson #2

Talk to your patient!!

The answer lies in the patient story.

## Migraine Headaches

- Migraine –
  - Dull throbbing quality, unilateral with photophobia, scalp tenderness, nausea. May last days. May be preceded by aura
  - “POUND”
    - Pulsating
    - Duration of 4-72 hours
    - Unilateral
    - Nausea
    - Disabling

Likelihood Ratio for migraine by number of POUNDING criteria met:

- 4 of 5 criteria – LR 24
- 3 of 5 criteria – LR 3.5
- 2 or fewer criteria – LR 0.41

## Red Flags



- Onset after age 50
- Change in HA pattern
- Acute onset of “worse HA of life”
- Pt with CA Hx or immuno-compromised
- HA + Fever
- HA + Neuro Deficit
- Signs of increased ICP
- Personality changes
- Pt on anticoagulation

## Lesson #3

- There is strength in numbers!!

## Rates of Significant Intracranial Abnormalities in Pts with Migraine HA and Normal Neuro Exam

Study	Number of patients	Significant abnormality detected	Rate	Upper 95% CI
<b>MIGRAINE</b>				
Cala, 1976 <sup>9</sup>	32	1	0.031	0.141
Cuether, 1983 <sup>18</sup>	435	1	0.002	0.011
Cull, 1995 <sup>17</sup>	69	0	0.000	0.043
De Benedinis, 1995 <sup>14</sup>	28	0	0.000	0.103
Hungerford, 1976 <sup>19</sup>	53	0	0.000	0.055
Igarashi, 1991 <sup>15</sup>	91	0	0.000	0.033
Kuhn, 1990 <sup>20</sup>	74	0	0.000	0.040
Osborn, 1991 <sup>21</sup>	41	0	0.000	0.071
Robbins, 1992 <sup>22</sup>	46	0	0.000	0.064
Sargent, 1979 <sup>23</sup>	129	0	0.000	0.023
Sargent, 1983 <sup>24</sup>	88	0	0.000	0.034
<b>Combined</b>	<b>1,086</b>	<b>2</b>	<b>0.0018</b>	<b>0.0059</b>

Evidence-Based Guidelines in the Primary Care Setting: Neuroimaging in Patients with Nonacute Headache – The US Headache Consortium

## Providing High Value Cost-Conscious Care:

Biostatistical Concepts You Need to Know

2012-2013 | Presentation #5 Of 10



Likelihood Ratios  
Appropriate use of stress testing  
in pts with suspected CAD



## Providing High Value Cost-Conscious Care:

Balancing Benefits with Harms and Costs

2012-2013 | Presentation #7 Of 10



Overdiagnosis  
Screening for prostate CA  
with PSA



## Providing High Value Cost-Conscious Care:

Overcoming Barriers

2012-2013 | Presentation #9 Of 10



Pressure of patient demands  
Advanced imaging for LBP



## Summary

- It is important to provide high value cost conscious care for our patients.
- Currently, physicians lack knowledge about the cost of care they provide.

### Summary

- Providers need to be educated about costs of specific tests and procedures, but this will play only a small part in changing practice patterns
- The biggest contributor to cost control will be the effective dissemination of medical literature and evidence based guidelines that can inform decisions about high value care

### Summary

- Practice patterns are often established during residency training.
- Therefore it is important to formally educate residents about methods for delivery of high value care
- Your institution has the opportunity to take a leadership role in this type of resident education by studying the ACP/AAIM High Value Care Curriculum

### Questions or Comments

