High Value, Cost-Conscious Care: Wasting the Buck Stops Here

Steven Weinberger, MD, FACP
Executive Vice President and CEO
American College of Physicians
Adjunct Professor of Medicine, Univ. of Pennsylvania
Senior Lecturer on Medicine, Harvard Medical School
Conflict of Interest Disclosure

I am an employee of the American College of Physicians. I have no other financial relationships with a commercial entity producing healthcare-related products and/or services.
Patient Presentation (part 1)

- 50 year old male with 1 week history of back pain similar to intermittent episodes for past 20 years

- Initial work-up: MRI (required before patient seen) ⇒ possible liver mass

- Next: abdominal ultrasound ⇒ non-diagnostic

- Then: repeat MRI ⇒ poor quality
Patient Presentation (part 2)

- Yet more: MRI #3 ⇒ no liver mass, but “something on the kidney”
- CT scan: liver and kidney normal
- Rx.: physical therapy ⇒ back pain improved
- Cost of evaluation: $6200
- Additional cost: substantial anxiety!
What’s the diagnosis?

VOMIT
(Victim of Modern Imaging Technology)

Hayward R. BMJ. 2003; 326:1273.
Overriding issues in health care

- Issue of the decade starting in 2000: quality of care and patient safety
- Issue of the decade starting in 2010: decreasing the cost of care

- Jay Carney: “Every economist, whose insights into this area are worth the paper on which his or her PhD is printed, would tell you that the principal driver, when it comes to spending, of our deficits and debt, is health care spending.”
Cost of Health Care

% US GDP

Excess Cost Domain Estimates

- Unnecessary Services ($210B)
- Inefficiently Delivered Services ($130B)
- Excess Administrative Costs ($190B)
- Excessive Pricing ($105B)
- Missed Prevention Opportunities ($55B)
- Fraud ($75B)

It Is Our Ethical and Professional Responsibility to Control Cost!

From Medical Professionalism in the New Millennium: A Physician Charter (ABIM-F, ACP-F, EFIM)

“While meeting the needs of individual patients, physicians are required to provide health care that is based on the wise and cost-effective management of limited clinical resources.”

“The physician’s professional responsibility for appropriate allocation of resources requires scrupulous avoidance of superfluous tests and procedures. The provision of unnecessary services not only exposes one’s patients to avoidable harm and expense but also diminishes the resources available for others.”

But who do physicians feel should be primarily responsible for controlling health care costs?

<table>
<thead>
<tr>
<th>Specific Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial lawyers</td>
<td>60%</td>
</tr>
<tr>
<td>Health insurance companies</td>
<td>59%</td>
</tr>
<tr>
<td>Hospitals and health systems</td>
<td>56%</td>
</tr>
<tr>
<td>Pharmaceutical and device manufacturers</td>
<td>56%</td>
</tr>
<tr>
<td>Patients</td>
<td>52%</td>
</tr>
<tr>
<td>Practicing physicians</td>
<td>36%</td>
</tr>
</tbody>
</table>

Conserving resources through rational care does not mean rationing!

- **Rationing**: decisions are made about the allocation of scarce medical resources and who receives them, leading to *underuse* of potentially appropriate care.

- **Rational care**: assuring that care is clinically effective, thus avoiding *overuse* or *misuse* of care that is inappropriate.
High-Value, Cost-Conscious Health Care: Concepts for Clinicians to Evaluate the Benefits, Harms, and Costs of Medical Interventions

Douglas K. Owens, MD, MS; Amir Qaseem, MD, PhD, MHA; Roger Chou, MD; and Paul Shekelle, MD, PhD, for the Clinical Guidelines Committee of the American College of Physicians*

Health care costs in the United States are increasing unsustainably, and further efforts to control costs are inevitable and essential. Efforts to control expenditures should focus on the value, in addition to the costs, of health care interventions. Whether an intervention provides high value depends on assessing whether its health benefits justify its costs. High-cost interventions may provide good value because they are highly beneficial; conversely, low-cost interventions may have little or no value if they provide little benefit.

Thus, the challenge becomes determining how to slow the rate of increase in costs while preserving high-value, high-quality care. A first step is to decrease or eliminate care that provides no benefit and may even be harmful. A second step is to provide medical interventions that provide good value: medical benefits that are commensurate with their costs.

This article discusses 3 key concepts for understanding how to assess the value of health care interventions. First, assessing the benefits, harms, and costs of an intervention is essential to understand whether it provides good value. Second, assessing the cost of an intervention should include not only the cost of the intervention itself but also any downstream costs that occur because the intervention was performed. Third, the incremental cost-effectiveness ratio estimates the additional cost required to obtain additional health benefits and provides a key measure of the value of a health care intervention.

For author affiliations, see end of text.
The philosophy of high value care

- This is primarily a quality issue: the right care at the right time

- Priorities
  - Eliminate the “low-hanging fruit”: interventions with low or no benefit, independent of cost
  - With multiple options that offer benefit, choose the one with the greatest value

- Ultimate outcomes: better patient care, reduced cost
GROWTH IN VOLUME OF PHYSICIAN SERVICES PER MEDICARE BENEFICIARY, 2000-2009

CUMULATIVE PERCENTAGE INCREASES

- Imaging
- Tests
- Other procedures
- E&M
- Major procedures
- All services

From Reinhardt blog, NY Times, 12/24/2010
Diagnostic Imaging Studies in Patients in Large Integrated Health Care Systems: 1996-2010

Why are diagnostic tests overused and misused?

- Lack of guidance or guidelines
- Lack of knowledge
- Patient expectations
- Inadequate time
- Discomfort with uncertainty
- Fear of malpractice
- Habit
- Erosion of physical exam skills
- Consultation “thoroughness”
- Personal gain
Overview of Goals for HVCCC

- Develop guidance for physicians about appropriate use of care, focusing initially on diagnostic testing
  - Assemble and integrate evidence-based and consensus-based recommendations
- Educate target audiences about areas of overuse and misuse of care:
  - Practicing clinicians
  - Trainees (residents and medical students)
  - Patients
Vehicles for disseminating high value care resources

- Papers from ACP’s Clinical Guidelines Committee in *Annals of Internal Medicine*
- ACP’s educational programs and products, e.g., *MKSAP*, live courses
- Development of resources for trainees (with AAIM)
- Patient education through ACP Foundation / Center for Patient Partnership in Healthcare
- Collaboration with consumer and other organizations
ACP's clinical recommendations educate physicians and patients on how to pursue care together in order to improve health, avoid harm, and eliminate wasteful practices.

What is High Value Care?
ACP's High Value Care (HVC) initiative is a broad program that connects two important priorities for the College:

Why We Care
Approximately 30% of healthcare costs (more than $750 billion)

What We Offer
Healthcare Professionals:
ACP has developed clinical recommendations...
Diagnostic Imaging for Low Back Pain: Advice for High Value Health Care

Diagnostic imaging is indicated for patients with low back pain only if they have severe progressive neurologic deficits or signs or symptoms that suggest a serious or specific underlying condition. In other patients, evidence indicates that routine imaging is not associated with clinically meaningful benefits but can lead to harms. Addressing inefficiencies in diagnostic testing could minimize potential harms to patients and have a large effect on use of resources by reducing both direct and downstream costs. In this area, more selective and low on low


For author affiliations, see end of text.

www.annals.org
Identifies 37 clinical situations in which a screening or diagnostic test does not reflect high value care.
Major Categories from “The Big List”

- Overuse/misuse of imaging studies
  - Unnecessary CT and MR scans
  - Unnecessary/inappropriate follow-up studies
- Misapplication of screening studies
  - Wrong population
  - Incorrect timing/frequency
- Routine preoperative testing
Major Categories from “The Big List”

- Overuse/misuse of cardiac diagnostic studies
  - Coronary angiography
  - Echocardiography
  - Stress imaging tests
- Overused blood tests
- Unnecessary/overused monitoring
  - Blood tests
  - Pulmonary function tests
## Ultrasound Tests of the Heart & Arteries

<table>
<thead>
<tr>
<th>Heart Disease, Stroke &amp; Aneurysm Prevention Package</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Echocardiogram</strong></td>
</tr>
<tr>
<td><strong>12-Lead Electrocardiogram (EKG)</strong></td>
</tr>
<tr>
<td><strong>Arterial Stiffness Index (ASI)</strong></td>
</tr>
<tr>
<td><strong>Carotid Artery Ultrasound</strong></td>
</tr>
<tr>
<td><strong>Ankle-Brachial Index (ABI)</strong></td>
</tr>
<tr>
<td><strong>Abdominal Aortic Aneurysm Ultrasound</strong></td>
</tr>
</tbody>
</table>

**Results Read By A Board Certified Physician**

**All 6 Tests $179**
(Valued At $2,300)
Creative marketing at work
Choosing Wisely® Partners – Round 1

- ABIM Foundation (convener)
- American Academy of Allergy, Asthma & Immunology
- American Academy of Family Physicians
- American College of Cardiology
- American College of Physicians
- American College of Radiology
- American Gastroenterological Association
- American Society of Clinical Oncology
- American Society of Nephrology
- American Society of Nuclear Cardiology
- Consumer Reports
ACP’s Choice of 5 Overused Items for “Choosing Wisely” Campaign

- Screening exercise ECG in asymptomatic individuals at low risk for coronary heart disease
- Imaging studies in patients with non-specific low back pain
- Brain imaging studies (CT or MRI) for simple syncope and a normal neurological examination
- CT pulmonary angiogram as the first study in patients with low pretest probability of venous thromboembolism, rather than D-dimer
- Preoperative chest radiography in the absence of a clinical suspicion for intrathoracic pathology
Do Physicians Agree That Health Care is Overused?

- Survey of primary care physicians
- 42% believe patients in their own practice are receiving too much care (vs. 6% who say “too little”)
- Perceived factors leading to overuse
  - Malpractice concerns: 76%
  - Clinical performance measures: 52%
  - Inadequate time to spend with patients: 40%

*Arch Intern Med.* 2011; 171:1582-1585
Habits start early in training → need to focus on students, residents, and fellows

Joint initiative to develop HVCCC program for residents: AAIM and ACP
Are we educating residents?

- 37% of residents were provided some feedback about their resource utilization; 20% reported receiving feedback regularly
- 16% developed a concrete plan with their attending physician for improving resource utilization; 28% reported receiving any corrective feedback
- 63% reported having no idea about cost of tests
Bringing Cost Consciousness into the Training Environment

- **Knowledge**: understanding of what helps patients vs. what is superfluous or even harms patients
- **Approach**: focus on appropriate care rather than saving money
- **Culture**: recognition that more ≠ better
- **Faculty development**: trainees mimic faculty behavior
- **Regulation**: cost consciousness in residency competency requirements
Overview of AAIM-ACP curriculum

(free download at www.highvaluecarecurriculum.org)

- Developed by 12 IM Programs (dept. chair, program directors, and residents)
- Introduces and builds on a simple, step-wise framework
- Six one hour modules with a mix of didactic and interactive teaching
- Small group activities involving actual cases (inpt. and outpt.) and bills to engage learners
- A Facilitator’s Guide accompanies each module to help faculty prepare
Teaching High-Value, Cost-Conscious Care to Residents: The Alliance for Academic Internal Medicine—American College of Physicians Curriculum

Cynthia D. Smith, MD, on behalf of the Alliance for Academic Internal Medicine—American College of Physicians High Value, Cost-Conscious Care Curriculum Development Committee*

Health care expenditures are projected to reach nearly 20% of the U.S. gross domestic product by 2020. Up to $765 billion of this spending has been identified as potentially avoidable; many of the avoidable costs have been attributed to unnecessary services. Postgraduate trainees have historically received little specific training in the stewardship of health care resources and minimal feedback on resource utilization and its effect on the cost of care. This article describes a new curriculum that was developed collaboratively by the Alliance for Academic Internal Medicine and the American College of Physicians to address this training gap. The curriculum introduces a simple, stepwise framework for delivering high-value care and focuses on teaching trainees to incorporate high-value, cost-conscious care principles into their clinical practice. It consists of ten 1-hour, case-based, interactive sessions designed to be flexibly incorporated into the existing conference structure of a residency training program.


For author affiliation, see end of text.
* For a list of committee members, see the Appendix (available at www.annals.org).

This article was published at www.annals.org on 10 July 2012.
Steps toward high value care

- Step one: Understand the benefits, harms, and relative costs of the interventions that you are considering.
- Step two: Decrease or eliminate the use of interventions that provide no benefits and/or may be harmful.
- Step three: Choose interventions and care settings that maximize benefits, minimize harms, and reduce costs (using comparative-effectiveness and cost-effectiveness data).
- Step four: Customize a care plan with the patient that incorporates their values and addresses their concerns.
- Step five: Identify system level opportunities to improve outcomes, minimize harms, and reduce healthcare waste.
<table>
<thead>
<tr>
<th>Curriculum Topic</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Eliminating healthcare waste and over-ordering of tests</td>
<td>Headache; heart failure; DVT</td>
</tr>
<tr>
<td>2 Healthcare costs and payment models</td>
<td>Appendicitis; sports injury; osteomyelitis</td>
</tr>
<tr>
<td>3 Utilizing biostatistics in diagnosis, screening and prevention</td>
<td>Chest pain; periodic health examination; chemoprevention</td>
</tr>
<tr>
<td>4 High value medication prescribing</td>
<td>Seasonal allergies; discharge medication reconciliation</td>
</tr>
<tr>
<td>5 Overcoming barriers to high value care</td>
<td>Low back pain; URI; septic joint</td>
</tr>
<tr>
<td>6 High value quality improvement</td>
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</tr>
</tbody>
</table>

Source: hvc.aponline.org/curriculum.html
Providing High-Value, Cost-Conscious Care: A Critical Seventh General Competency for Physicians

Steven E. Weinberger, MD

There is general agreement that the U.S. economy cannot sustain the staggering economic burden imposed by the current and projected costs of health care. Whereas governmental approaches are focused primarily on decreasing spending for medical care, it is the responsibility of the medical profession to become cost-conscious and decrease unnecessary care that does not benefit patients but represents a substantial percentage of health care costs. At present, the 6 general competencies of the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS) that drive residency training place relatively little emphasis on residents’ understanding of the need for stewardship of resources or for practicing in a cost-conscious fashion. Given the importance in today’s health care system, the author proposes that cost-consciousness and stewardship of resources be elevated by the ACGME and the ABMS to the level of a new, seventh general competency. This will hopefully provide the necessary impetus to change the culture of the training environment and the practice patterns of both residents and their supervising faculty.


For author affiliation, see end of text.
ACGME milestone relating to stewardship of resources

Version 12/2012

10. Identifies forces that impact the cost of health care, and advocates for, and practices cost-effective care. (SBP3)

<table>
<thead>
<tr>
<th>Critical Deficiencies</th>
<th>Ready for unsupervised practice</th>
<th>Aspirational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignores cost issues in the provision of care</td>
<td>Consistently works to address patient specific barriers to cost-effective care</td>
<td>Teaches patients and healthcare team members to recognize and address common barriers to cost-effective care and appropriate utilization of resources</td>
</tr>
<tr>
<td>Demonstrates no effort to overcome barriers to cost-effective care</td>
<td>Advocates for cost-conscious utilization of resources (i.e. emergency department visits, hospital readmissions)</td>
<td>Actively participates in initiatives and care delivery models designed to overcome or mitigate barriers to cost-effective high quality care</td>
</tr>
<tr>
<td>Lacks awareness of external factors (e.g. socioeconomic, cultural, literacy, insurance status) that impact the cost of health care and the role that external stakeholders (e.g. providers, suppliers, financers, purchasers) have on the cost of care</td>
<td>Minimizes unnecessary diagnostic and therapeutic tests</td>
<td></td>
</tr>
<tr>
<td>Does not consider limited health care resources when ordering diagnostic or therapeutic interventions</td>
<td>Possesses an incomplete understanding of cost-awareness principles for a population of patients (e.g. screening tests)</td>
<td></td>
</tr>
</tbody>
</table>

Comments:

Source: http://www.acgmenas.org/assets/pdf/Milestones/InternalMedicineMilestones.pdf
Challenges for program directors

- Find space in a busy curriculum with reduced duty hours to incorporate these sessions
- Identify and develop faculty to teach these topics and role model high-value cost-conscious care at the bedside
- Need to track this additional competency in their trainees over time (ITE sub-score on HVC; ABIM/ACGME milestones)
Challenges for faculty

- Ask appropriate questions at the point of care, e.g.,
  - Did the patient have this test previously?
  - Will the results of this test change the care of the patient?
  - Was it the most appropriate and cost-effective test to order?
  - What is the probability and what are the potential adverse consequences of a false positive result?

- Observe and provide feedback to trainees on their provision of high value care
Tough additional challenges in controlling costs

- End of life care
- Physician financial conflict of interest
- Defensive medicine
- Over-pricing
- Price transparency
- Decreasing hospitalization and ER utilization
Is This Test Overpriced?

Account Summary
Patient Name: [Redacted]
Statement Date: 01/31/12
Service Date(s): 01/11/12
Account Number: 99269730
Medical Record Number: 053009544
Please Pay This Amt: $60.00

Charge Information

<table>
<thead>
<tr>
<th>Trans. Date</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/12</td>
<td>1 MRI PELVIS WITH &amp; W/O CONTRAST</td>
<td>9,738.00</td>
</tr>
<tr>
<td>01/11/12</td>
<td>9 INJECTION OF GADOLINIUM PER ML</td>
<td>9.00</td>
</tr>
<tr>
<td>01/24/12</td>
<td>OP SYSTEM ADJ - BLUE B85 IBC PER CHOIC</td>
<td>8,135.24-</td>
</tr>
<tr>
<td>01/24/12</td>
<td>BLUE CROSS PAID B85 IBC PER CHOIC</td>
<td>1,551.76-</td>
</tr>
</tbody>
</table>
The Bottom Line

- Health care costs are unsustainable
- Nearly 1/3 of health care costs are wasted
- Physicians have control over a significant component of these wasted costs
- Current physician practice and training have not focused on avoiding waste
- The culture of residency training must change to assure cost-consciousness
- Avoiding overuse and misuse must become a core value and competency for all physicians
WE HAVE MET THE ENEMY AND HE IS US.