Health spending in the United States soared above $2 trillion for the first time in 2006 and has nearly doubled in the past decade, amounting to > $8,000 per person per year ($15,000 in McAllen Texas).

**2012: $2.8 Trillion**

**2018: $4.4 Trillion**
The Projected Health Care Cost Growth Rate is Unsustainable

Projected Health Care Cost Growth if Historical Average Rate of Increase Persists

Source: Congressional Budget Office

“The Cost Conundrum”

The Problem for US Health Care

Healthcare Spending as a Percentage of Gross Domestic Product

US 18%

United States

Germany

France

Canada

Norway

UK 8.4%

Sweden

Iceland

Australia

China

Japan

U.K.

Spain

Finland

India

Most African Countries

Blue Cross Blue Shield Association, 2007 Medical Cost Reference Guide

2012
National Healthcare Expenditures, 2012

- NHE = $2.8 trillion
- 18% of GDP
- NHE per capita = $8,402 (2012)
- Average private health insurance premium in 2009 for a family = $13,375 (2010)
- Yearly take home pay of a minimum wage worker = $13,186 (2010)

Health Affairs 2010 29 (3)

The Cost of Health Care Reform
The One Trillion Dollar Question

- Zeros matter
- A million seconds ago was last week.
- A billion seconds ago, Richard Nixon was in the White House.
- A trillion seconds ago was 30,000 BC


The Medical Cost Environment

- $2.8 trillion spent on medical care in US in 2012, > $8,402 per person.
- In 2010 federal government became largest financer of health care (29% of spending), surpassing households (28%)
- Medicare/Medicaid is 23% of federal budget exceeding defense spending by 3%
- The government spent half of the revenues on health care, while health care costs only 6% of personal income.
- Public health insurance paid for 39% of medical care; private coverage paid for 33%. Out-of-pocket spending by consumers accounted for 12%
The Issues

Coverage
Choice
Cost
Quality

Groundhog Day – Health Care Reform

Truman 1945
Clinton 1993
Obama 2009

Good News. We're seeing a growing consensus in positions on the health care debate!
The Challenge for Health Reform

President Obama's Principles for Healthcare Reform
The Administration believes that comprehensive health reform should:
• Reduce long-term growth of health care costs for businesses and government
• Protect families from bankruptcy or debt because of health care costs
• Guarantee choice of doctors and health plans

White House Principles for Healthcare Reform
• Invest in prevention and wellness
• Improve patient safety and quality of care
• Assure affordable, quality health coverage for all Americans
• Maintain coverage when you change or lose your job
• End barriers to coverage for people with pre-existing medical conditions
What Do People Want?

- Peace of mind
- Choice and control
- Affordability
- Personal Physician
- They want personal access at an affordable cost
- Personal responsibility — in others!!

The Challenge of the Uninsured

- Department of Health and Human Services - Secretary Kathleen Sebelius:
  "The status quo is unsustainable and we cannot allow millions of Americans to continue to go without the care they need and deserve." 47 Million uninsured in US.

U.S. Health Care (2012)

- Recent HHS study found that the wealthiest 30% of population accounts for nearly 89% of health care expenditures
- Tens of millions of Americans — those whose employers don’t provide health insurance, who are too poor to pay for it themselves and yet are too rich to use Medicaid — get the least health care of all
Pre-existing Conditions (2012)

- GAO estimates between 36 to 122 adults under 65 yo have “pre-existing conditions”
- 17 Million of these lack health insurance

“Health reform is unlikely to be adopted if it is not at or near the top of the national political agenda…”
President Barack Obama
March 5, 2009

“I think you should be more explicit here in step two.”
Legislation on Healthcare Reform & ... Political Climate of the 112th

“You can lead a man to Congress, but you can’t make him think.”

Milton Berle
ACA in Brief

Insurance Reform
- More people covered
- More benefits & protections
- Lower costs (employers & government)
- Improved quality & efficiency
- Stronger workforce & infrastructure
- Greater focus on public health & prevention

Health System Reform
- Medical home expanded
- Essential benefits
- Exchange subsidies
- Accountability Care Orgs (ACOs)
- Community health centers
- Prevention & Public Health Fund
- Medicare's role in payment reform

ACA more Detailed

ACA Patient Protection & Affordable Care Act
On Passage in 2010

- Health insurance reform implementation fund of $1 billion available in HHS for insurance reform regulations
- Preservation of the right to maintain existing coverage is protected
- National efforts to combat health care fraud (not focused on physicians) funded and launched

- ACA in Brief
- ACA more Detailed
- ACA Patient Protection & Affordable Care Act
ACA Health Care Quality Improvements

• Physician Quality Reporting Initiative (PQRI)
  – Extended through 2014
  – Incentive payment increased by .5 percent [2011 to 2014]
  – Improvements include appeals process and more timely feedback
  – Maintenance of Certification program participation option (.5 percent payment incentive)
  – Penalties for not participating [2015]

• Innovation Funding
  – Funding set aside for state projects to help identify innovative care models that can be replicated throughout the country

ACA Payment Innovation

• Accountable Care Organizations (ACOs)
  – HHS to establish a “Medicare Shared Savings Program” that allows groups of providers who meet certain statutory criteria to be recognized as ACOs [2012]
  – HHS to develop a five-year national, voluntary bundled payment pilot program to provide incentives to hospitals, physicians, and other providers to improve patient care and achieve Medicare savings [2013]

ACA Payment Innovation

Independent Payment Advisory Board (IPAB)

– A 15-member board tasked with developing and presenting proposals to the President and Congress [2014], to:
  • Extend the solvency of Medicare
  • Slow cost growth
  • Improve quality of care
  • Reduce national health expenditures
– Proposals will be automatically implemented unless Congress approves alternatives that achieve the same level of savings
– Members appointed by the President and approved by the Senate for 6-year terms
– Hospitals exempt from payment modification proposals until 2019
Transparency & Program Integrity

**Physician Feedback Program:**
- HHS to provide reports to physicians comparing their resource use with other physicians caring for patients with similar conditions [2012]

**Physician Compare:**
- HHS to establish a "Physician Compare" website with information on physicians enrolled in Medicare [2011]. Note: HHS must implement a plan for including information on physician performance [2013]

**Self Referral Violation:**
- CMS will create a protocol for physicians who violate the physician self-referral (Stark) law and wish to disclose those violations to the Agency

ACA 2010

- Prohibitions on lifetime or annual insurance limits for essential health benefits implemented for all private health insurance
- Coverage of new preventive services required by all insurers
- Extension of dependent coverage to unmarried adult children through age 26 through their parents insurance is implemented
- Prohibitions of insurance discrimination based on salary implemented

ACA 2010

- Required medical loss ratios (80 percent or more of the premium dollar must be spent on medical care) implemented
- New insurance appeals processes implemented
- Full coverage for pre-existing health conditions for enrollees under 19 implemented
- Patient protections including choice of provider and medical reimbursement data implemented
- Establishment of PCORI (Patient-Centered Outcomes Research Institute)
ACA 2011

• Grants for wellness programs available
• States- Medical malpractice demonstration grants
• Primary care scholarship and loan repayments
• Medicare Innovation Center established with $10 billion to fund payment reform and quality improvement pilots
• Restrictions on physician ownership of specialty hospitals tightened

ACA 2012

• Ensuring quality of care improvements implemented
• New systems for linking payment to quality outcomes will be established
• Hospital penalties for higher-than-expected readmission rates will be implemented

ACA 2013

• Insurance exchanges implemented by the states or by HHS if they choose not to do so
• Uninsured individuals, small business employees and other citizens without coverage will be guaranteed affordable choices of insurance options
• Increased 10% Medicaid payment for primary care
• Primary care MDs will be paid full Medicare reimbursement rates
ACA 2014

- Coverage for pre-existing health conditions guaranteed for all citizens
- Guaranteed issue of insurance to all who apply
- Guaranteed renewability of insurance
- Prohibition on excessive insurance waiting periods
- Adjusted community rating rules for all insurers implemented (charges must be consistent for all insured persons, regardless of medical conditions, based on age groups)
- Nondiscrimination on health status related factors
- Wellness program requirements

ACA 2014

- Small business tax credit fully available
- **Individual Mandate**
  - Penalty $95 per person for 2014. Increases to $325 in 2015 and to $695 (or up to 2.5 percent of income) in 2016. After 2016, dollar amounts indexed. Families pay a cap of $2,250 per family.
- New employer responsibilities for coverage - fines imposed ($2000 per employee; first 30 employees exempted)

ACA Impact on Physicians and role of the NCDR!!!!!

**Quality and Value Based Purchasing (VBP)**
- Quality Modifier 2015
- PQRS; extended bonus 4 years, then added penalties

**Public Reporting**
- MD specific feedback
- CMS Physician Compare

**Sunshine Act, CMMI, PCORI, IPAB**
Quality Modifier Starts 2015*

CMS decides Registries meet reporting requirement
Criteria for PQRS !!
Hopefully also for all Value Based Modifier needs

ACA Left Out:
Substantial Payment Reform

Without Radical Reform:
1. Price controls
   - will have us doing more and more for less and less
2. Capitation
   - Accountable Care Organizations

Real Payment Reform may be preferred:
- Reorganizing how payers pay providers
- Realigning incentives

ACA “Cost Control” April 2010

* Based on 2013 data
ACA Left Out: Real Malpractice Reform

- No proposal for caps on non-economic damages
- Needed:
  - Alternative mechanisms for resolving disputes
  - Health courts
  - Administrative panels
  - No fault
  - Screening panels, safe harbors for guidelines – based care
  - Limit attorney fees, damages, collateral source offsets, etc.

ACA Left Out: SGRrrrr

Sustainable Growth Rate Formula

- A yearly spending target to control aggregate costs of physician services.
- Based on utilization of physician services and a 10 year GDP average
- Medicare physician payments at risk to be cut by 30%
- Fix would cost > $300 B over 10 years

Vladeck, NEJM 2010;362:1955-1957

House Repeals ACA Jan 2011

"We might need that kidney back."
Supreme Court Decision

Individual Mandate 5-4
– Violates Commerce Clause 5-4
– Allowed under Congress’ Taxing Authority 5-4

Medicaid Expansion 5-4
– Unconstitutionally coercive 7-2
– Remedy: no penalizing states by withholding existing Medicaid $$ 5-4

Post SCOTUS Individual Mandate

Post SCOTUS Decision
Immediate Outcome of SCOTUS Ruling

- 6 million young adults enrolled in parents’ insurance plans
- 5.2 million Medicare enrollees saved on prescription-drug costs because of the shrinking Part D “doughnut hole”
- 600,000 new adult Medicaid enrollees in seven states that have already expanded Medicaid eligibility
- 12.8 million consumers who will receive more than $1 billion in insurance-premium rebates

“The Road Ahead for the Affordable Care Act”
McDonough, NEJM 2012:367:199-201

Uninsured Numbers Since ACA

- Fewer Uninsured People” Sept. 13, 2012 NY Times
- The # of Americans without health insurance declined in 2011, first drop since 2007
- Uninsured fell to 48.6 million (15.7%) in 2011 down from 49.9 million (16.3%) in 2010
- 3 million of children under 26 y.o. now covered

ACA saved $2.1 B for Consumers

- HHS report of Sept 11, 2012
  – New rate review rules instituted 9/2011 in ACA prevent insurance companies from raising rates with no accountability or transparency saving $1 billion (average rebate of $151 per household)
  – ACA Medical Loss Ratio (or 80/20) rule delivering rebates of $1.1 billion to 13 million
The Future of Health Care Reform: Impact of the US Supreme Court Decision

- Bars HHS from denying all Medicaid funding to states that opt out of ACA’s Medicaid expansion, but allows states to obtain additional funding in exchange for opting in and complying with ACA’s standards.
- Implementation of health insurance exchanges and other provisions will continue, with delays as many states “clueless”.
- If states opt out of Medicaid expansions, millions of low income Americans who would have obtained coverage would remain uninsured, and providers will continue to face significant uncompensated care burdens.

Republican Reaction Post SCOTUS

Post SCOTUS Decision

He’s been gloating ever since the Supreme Court upheld the individual mandate.
"ACA's economic viability hinges on whether individuals actually purchase insurance, while universal coverage hinges on states expanding Medicaid."


"Medicaid expansion in New York, Maine and Arizona was associated not only with improved health care coverage but also with reduced mortality."

"The question of whether the states will expand Medicaid, therefore, is not just a question of politics; it is a question of life, health, and death."

Medicaid: The Stakes for States

• 15.1 million newly Medicaid eligible under ACA
  – US government will pay 100% of Medicaid cost to the states but by 2020 US government will pay only 90%
• 3.6 million of these Medicaid eligible also eligible for Insurance exchanges
  – States motivated for patients to choose insurance exchanges as no cost to the states
  – Medicaid accounts for >20% of total state budgets and represents the largest single source of federal funding to the states.
Scrambling to Implement Health Insurance Exchanges

Health Insurance Exchanges start enrollment October 1, 2013!!

Individual Mandate Jan 2014
- Only 17 states & D.C. will set up their own state insurance exchanges marketplace to buy health care coverage
- Federal government will run exchanges solely or in a state partnership in the remainder of the 50 states

California Health Benefit Exchange
- California: 7 million uninsured people, > any state
  - Singular challenges: size, diversity and geographic spread of uninsured population & vast budget problems.
  - Web portal 10/2013
    - Three million people expected to buy insurance by 2019
    - Many others will likely enroll in Medicaid via the web portal
  - State’s contribution could exceed $2 billion a year
“California Tries to Guide the Way on Health Law”  NY Times 9/15/2012

“We are the example. If it can be done here, it can be done anywhere.”  Anthony Wright, Health Access California

Renaming the California Health Benefit Exchange:
CoveredCalifornia
www.coveredca.com

Peter Lee,
Exec. Dir. Insurance Exchange

CoveredCalifornia
Guidelines for Selection of Qualified Health Plans

I. Promote affordability for the consumer and small employer- both in terms of premium and at point of care
II. Assure access to quality care for consumers presenting with a range of health statuses and conditions
III. Facilitate informed choice for health plans and providers by consumers and small employers
IV. Promote wellness and prevention
V. Reduce health disparities and foster health equity
VI. Be a catalyst for delivery system reform while being mindful of the Exchange’s impact on and role in the broader health care delivery system
VII. Operate with speed and agility and use resources efficiently in the most focused possible way
Sequestration

Rearrange the letters of “sequestration” around, and you get “quiet senators.”

Sequestration March 1, 2013

- Sequestration Poses Significant Threat to Patients, Physicians, and Medical Innovation
- Budget Control Act of 2011 and budget sequester targets, Medicare reimbursement reduced annually by 2% beginning in 2013.
- GME funding threatened risking the number of new physicians being trained as we face physician shortages and increasing population demands – 2% cut
- Dramatic impact on research and public health, cutting 8.4% of federal programs such as NIH in 2013

Where the $85B/Yr. Cuts Fall

<table>
<thead>
<tr>
<th>Military</th>
<th>Domestic Programs</th>
<th>Mandatory Spending</th>
<th>No Cuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>$43 B or 7.8% of $550 B</td>
<td>$26 B or 5.2% of $510 B</td>
<td>$11B or 2% of $560 B</td>
<td>SSI, Medicaid, Veterans, Fed Retire. low-income programs</td>
</tr>
</tbody>
</table>

Half the cuts from national security operations and military costs
Health, education, drug enforcement, national parks, etc.
Medicare providers & plans
Agriculture & unemployment benefits

Other $5B of $95B
Sequestration National Health Related Cuts

- NIH faces a $1.6 billion cut
- FDA will absorb $210 million in cuts
  - cut funding: contracts, collaborations & travel
- Medicare provider payments cut 2% April 1st
- NSF expects a $35 million cut
  - 1,000 fewer grants, 1601 fewer graduate students & 177 fewer postdocs in 2013
- CDC: Center for Disease Control (5-7%)
- Indian Health Service (5-7%)

Sequestration Cuts to States

- Community Health Centers (900,000 less patients served)
- Child Care
- Vaccines for Children
- Public Health
- Nutritional Assistance for Seniors
- STOP Violence Against Women Program
- Clean Air and Water
- Teachers and Schools
- Work-study Jobs
- Head Start
- Job Search Assistance
- Military Readiness
- Law Enforcement

IOM Report

Best Care at Lower Cost: The Path to Continuously Learning Health Care in America

The National Academies Press
Fall 2012

http://www.nap.edu/catalog.php?record_id=13444
IOM Estimated Sources of Excess Costs in Health Care (2009)

<table>
<thead>
<tr>
<th>Category</th>
<th>Sources</th>
<th>Estimate of Excess Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unnecessary Services</td>
<td>• Overuse—beyond evidence-established levels</td>
<td>$210 billion</td>
</tr>
<tr>
<td></td>
<td>• Discretionary redundancy</td>
<td></td>
</tr>
<tr>
<td>Inefficiently Delivered</td>
<td></td>
<td>$130 billion</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess Administrative</td>
<td></td>
<td>$190 billion</td>
</tr>
<tr>
<td>Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prices That Are Too</td>
<td></td>
<td>$105 billion</td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missed Prevention</td>
<td></td>
<td>$55 billion</td>
</tr>
<tr>
<td>Opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fraud</td>
<td>• All sources—payers, clinicians, patients</td>
<td>$75 billion</td>
</tr>
</tbody>
</table>

$800 Billion of waste each year

Vs

$85 Billion of Sequestration Cuts!!

Bitter Pill: Why Medical Bills are Killing Us
Feb. 20, 2013

Causes and Cures (1)

<table>
<thead>
<tr>
<th>Moral hazard and disincentives of insurance system</th>
<th>More co-pays</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax advantage</td>
<td>Tax on Cadillac plans</td>
</tr>
<tr>
<td>High income/expectations</td>
<td>Education/ change in societal expectations</td>
</tr>
<tr>
<td>Fee-for-service</td>
<td>Bundling, capitation, blended with FFS</td>
</tr>
<tr>
<td>Forced demand by providers</td>
<td>Clinical Practice Guidelines, Appropriate Use Criteria, RBMs</td>
</tr>
<tr>
<td>Specialty Mix</td>
<td>Increased payment to primary care Increased use of non-MDs</td>
</tr>
</tbody>
</table>
Causes and Cures (2)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragmentation</td>
<td>EMR, bundled payments, ACOs</td>
</tr>
<tr>
<td>Malpractice</td>
<td>True reform? Non-adversarial systems</td>
</tr>
<tr>
<td>Pay levels of providers, pricing of services</td>
<td>Rate setting</td>
</tr>
<tr>
<td>Patent system</td>
<td>Regulate patent expiration deals</td>
</tr>
<tr>
<td>Technology, Drugs</td>
<td>Generics, rate setting</td>
</tr>
<tr>
<td>Lack of transparency about cost and comparative effectiveness</td>
<td>Cost transparency and more comparative effectiveness research and education</td>
</tr>
</tbody>
</table>

Stormy Waters – Hospitals & MDs

- Affordable Care Act and Medicaid Expansion
- Continued Reimbursement Cuts – CMS/Payers
  - SGR Continuing Saga
  - Imaging “Substitution” & Pre-authorization Payer Strategies
- Migration to Hospital Practice Integration Models
- Competency- MOCs, Accreditations
- Demand for Quality Reporting
- Demand for Public Reporting & Transparency
- EHR and Meaningful Use Adoption
- Demand for Appropriateness Evaluations
  - Maryland State, HCA and DOJ Alleged Fraud Investigations
- EHRs; meaningful use
- Value based purchasing
- Accountable Care Organizations
- Payment cuts
- Physician Quality Reporting System (PQRS)
- Preauthorization
- Efficiency metrics (= cut costs)
- Bundled payments (capitation)
- Utilization review
- Appropriateness auditing
- Public Reporting
- Claims data profiling
- Episode groupers
- Hospital employment
- Payment cuts
- Accountable Care Organizations
- Bundled payments (capitation)
- Certification exams
- Physician Quality Reporting System (PQRS)
- Preauthorization
- Efficiency metrics (= cut costs)
- Bundled payments (capitation)
- Appropriateness auditing
- Public Reporting
- Claims data profiling
- Episode groupers
- Hospital employment
- Payment cuts
- Accountable Care Organizations
- Bundled payments (capitation)
- Certification exams

The 2012 CV Specialist: Quality, Accountability, Transparency & Cost


Societal Perceptions of Clinicians

Knights ????
If Clinicians are Knights

- "Knighthood" the definition of Professionalism
  - Stewardship for Healthcare system in our hands
  - Trusted to practice Appropriate Use of resources
  - Champion of patients and policies to support our work
  - Save and improve lives, financial gain is secondary
  - Continuing education and clinical and basic research
  - Respected advisor for policy and payment when policy affects health of public

Jain & Cassel JAMA 2010;304:1009-1110
If Clinicians are Knaves

- Policy, management and educational efforts designed to combat and work against clinicians and not for them
- Self-interest/financial gain first; patients secondary
- Need rewards and incentives to motivate
  - Monitoring for abuse, fraud and waste required
- Learn new techniques/procedures for personal gain
- Research for self-glorification and narcissism
- Health care system functions in spite of … not due to them
- Regulations guard against malfeasance and need for public protection

(Jain & Cassel JAMA 2010;304:1009-110)

Clinicians viewed as Knaves & Pawns NOT Knights - Implications

- Views of unwarranted variations in care, evidence of waste and occasionally fraud
- The modern clinician in the United States now regarded at times as a Knave or a Pawn - rather than a Knight !!

Donald Berwick, MD

Past President and CEO, Institute for Healthcare Improvement
Administrator, CMS: 7/10 – 12/11

“Unintended variation is stealing healthcare blind”

-20-30% of health spending is waste with no benefit to patients, because of overtreatment, failure to coordinate care, administrative complexity and fraud
Variation in Care
PCI Rates per 1,000 Medicare Enrollees (2002-03)

Variation in PCI Higher than Other Procedures

Variation in procedures per 1000 Medicare patients in 306 hospital referral regions

Source: Dartmouth Atlas
Potential Impact of Inappropriate PCI

- 700,000 PCI/year in US
- 5% inappropriate and 12% uncertain (NCDR)
- 25% of uncertain PCI are inappropriate

>200 deaths avoidable by eliminating inappropriate PCI

Was your Stent Unnecessary?

A New Conventional Wisdom for HCR

1. Societal consensus emerges that costs must stabilize through a combination of market forces, public policy, regulation, and delivery innovation
2. Discovery, innovation, profitability, high salaries and wages, advanced technology all still possible—but in a near zero sum environment where there are winners and losers
3. Solutions, and their associated trade offs, vary by region, payer, provider, and patient
Value equation for cardiovascular procedures – was the right procedure done in the right way with the right outcome in a timely fashion? Measures: AUC, Process, & Outcomes

Core of ACC's Strategy

Why We Invest
- Unique clinical information
- Enable performance measurement by physicians for physicians
- Support for novel scientific research production
- Scaled delivery of registry-driven quality improvement programs

NCDR Cath PCI Registry

2500 hospitals
> 2000 cardiologists
16 million clinical records

ST/T ACC TVT Registry

STS/ACC TVT Registry

Pinnacle Registry

ACTION Registry-GWTG

CARE Registry

ICD Registry


Helping Cardiovascular Professionals Learn. Advance. Heal.
Quality can save Money
U. M. Khot et. Al., Emergency Department Activation of the Catheterization Laboratory and Immediate Transfer to an Immediately Available Catheterization Laboratory to Reduce Door to Balloon Time in ST Elevation Myocardial Infarction. Circulation 2007;116

Door to Balloon in STEMI
ED Activation of Cath Lab & Immediate Transfer by Care Team

- D2B decreased 113 min to 75 minutes
- Transfer in 147 minutes to 85 minutes
- Infarct size reduced (creatine kinase)
- LOS 5 +/- 7 days to 3 +/- 2 days
Cost $26K (+/- $29k) to $18K (+/- $9k)

PRISM Models – Bleeding

Peri-Procedural Bleeding Complications Model
- Based upon NCDR Cath/PCI Registry
  - Uses pre-procedural data
  - Built upon 302,192 procedures from 440 sites
  - C-statistic = 0.73
- Stratifies patients into 3 risk groups
  - Low risk: <1%
  - Moderate: 1-3%
  - High risk: >3%


Potential Interventions for High Bleeding Risk

Interventions to Consider:
- Use of Bivalirudin
- Use of Closure Device
- Radial Approach
- Admission as an Inpatient for Observation

Recommendations:
- Low Risk – No Recommendation
- Moderate Risk – At least 1 Intervention
- High Risk – 2 or More Interventions
Use of bleeding avoidance strategies among patients undergoing PCI

Marso et al. JAMA 2010;303(21):2156-2164

30.8
35
40.3
24.3 23.9 23.2 23.8 23.3 22.1 21
17.8
14.4
0
5
10
15
20
25
30
35
40
45

Bleeding (%)

Low Risk
Intermediate Risk
High Risk

The Risk-Treatment Paradox

M = Manual comp.
C = Closure only
B = Bival only
BC = Bival+closure

Costs per Patient of Bivalirudin Use

Detailed cost study of bivalirudin use by bleeding risk Mid America Heart Institute

Costs per Patient of Bivalirudin Use

Low Bleeding Risk
Moderate Risk
High Bleeding Risk

Because:
1) There are continuing and reasonable questions about what we do
2) If we don’t do this, someone else will
3) We can and will do this better than anyone else

Appropriate Use Criteria

J Am Coll Cardiol 2012
Available at http://www.acc.org

M = Manual comp.
C = Closure only
B = Bival only
BC = Bival+closure
NCDR CathPCI AUC Metrics

Potential AUC Revasc. QI Efforts

1. Prompts for ordering physicians for Caths
2. Real-time Decision Tools after angiography and before PCI
ACE in Era of Health Care Reform

ACE improves quality/efficiency/costs:

- Facilitates implementation of appropriate use criteria (AUC).
- Engages MDs in the quality outcomes process with highly effective peer review.
- Validates compliance with current published guidelines and consensus documents.
- Provides cost-effective programs - mitigate financial risk.

National Summit on Overuse: Overuse of Elective PCI Advisory Panel - Sept 2012
Proposed Interventions

1. Use of proper documentation for indications of Elective PCI
2. Encourage standardized interpretation of non-invasive testing with emphasis on ischemia
3. Focus on informed consent and allowing for patient knowledge/understanding of the benefits/risks of PCI
4. Public/professional education

Proposal #1: Promote Standardized Cath/Interventional Reports

- Development of standardized template utilizing the AUC Criteria
  - Clinical presentation
  - Symptom severity
  - Ischemia severity
  - Extent of medical therapy
  - Extent of coronary anatomical findings on angiography
- Utilize a second “time-out” during the procedure to ensure that appropriate documentation of indications for the Elective PCI.
- Formal random external or internal case and film review on periodic basis.

Proposal #2: Promote Standardized Analysis/Interpretation of non-invasive testing and ischemia

- Development of standardized report for non-invasive testing including the following:
  - Radiation safety
  - Mandatory appropriate use criteria
  - Mandatory standardized reporting including the extent of the severity of ischemia
- Development of criteria for stress testing; both for referral process & interpretation of the test.
2012 AUC Revasc Focused Update in NCDR CathPCI Registry® Institutional Outcomes Reports:
Proportion of Evaluated PCI Procedures that were “Inappropriate”

Data Source: NCDR data, unpublished

JAMA 2011: ICD Appropriate Use

Non-Evidence-Based ICD Implantations in the United States 22.5%

Sara M. Al-Khazaleh, MD, MHS
Anne Hellkamp, MS
Joshua Curtis, MD
Daniel Mark, MD, MPH
Eric France, MD
Gilian B. Sanders, PhD
Paul A. Bridgewater, MD, MS
Abram F. Hernandez, MD, MHS
Lesley H. Curtis, PhD
Stephen M. Ehmke, MD

Context: Practice guidelines do not recommend use of an implantable cardioverter-defibrillator (ICD) for primary prevention in patients recovering from a myocardial infarction or coronary artery bypass graft surgery and those with severe heart failure symptoms or a recent diagnosis of heart failure.

Objective: To determine the number, characteristics, and in-hospital outcomes of patients who receive a non-evidence-based ICD and examine the distribution of these implants by site, physician specialty, and year of procedure.

Design, Setting, and Patients: Retrospective cohort study of cases submitted to the National Cardiovascular Data Registry-ICD Registry between January 1, 2006, and June 30, 2008.

Main Outcome Measure: In-hospital outcomes.

Results: Of 111,507 patients, 25.4% received non-evidence-based ICD implants (22.5%). Patients who received a non-evidence-based ICD compared with those who received an evidence-based ICD were more likely to be women and to have a history of heart failure.

Hospital Variation of Non-Evidence ICDs

Figure 1. Rates of Non-Evidence-Based Implantable Cardioverter-Defibrillators (ICDs) Across Sites
Variation Is the Enemy of Good

Variability Analysis
- Reduces inefficiency
- Leverages appropriate sites of care
Wisconsin SMARTCare

- Focus: the most expensive area under our control:
  Dx & Rx of Stable Ischemic Heart Disease

- Knits together Clinical tools developed & in use,
  - Registries: CathPCI and PINNACLE
  - Decision Support: FOCUS and PRISM
    • AUC Imaging and Revascularization
  - Shared Decision-Making
- Mechanism for feedback and quality improvement

Purchasers’ Concerns
(Also Every Patient’s Concern)

Evidence Based Guidelines
A Method to Reduce Variation
Shared Decision Making
Fiscal Stewardship

Controlling our Destiny
for American Healthcare

John Maynard Keynes
Global Budgets
- A gutsy move in Massachusetts
- Little detail on enforcement mechanism

Milton Friedman
Fee for Service
- Eliminate price rigidities for both consumers and producers

Pay for Performance
- Maybe better, but no viable cost control mechanism
- Too little, too late

Unfettered Free Market
- Eliminate price rigidities for both consumers and producers

Bundled Payment
- In theory good idea, but in practice gets overwhelmingly complicated
- Only applicable to a tiny percentage of current healthcare transactions

Capitation 2.0
- Population-specific budgets combined with vastly superior transparency and sensible regulation
- ACOs, PCMH, SDM, PMs, etc., all part of clinical toolkit

3/22/2013
Emerging Payment Models Define Future Incentives, New Care Delivery Models

- Maximize utilization
- Expand disease-based care across place, time
- Minimize cost to drive referral volumes
- Target population to mitigate declining use rate, capitalize on efficiency

Learn from the middle game—understanding new care models, lowering costs to transition to future growth

The Official Definition

What is an “Accountable Care Organization”?

A group of providers who are “accountable for the quality, cost, and overall care” of patients.

Viewed as a “shared savings program”

Section 3022, Patient Protection and Affordable Care Act

The Real Definition

What is an “Accountable Care Organization”?

A group of providers who can figure out how to save money in health care
How Will ACOs Generate All These Savings?

ACO ("the "Black Box")

What's In That Black Box Can't Be Good For Consumers, Can It?

Focus Should Be On Improving Care to Reduce Costs
eReports for Hospital Systems

Monitor Data Quality  Monitor Metrics  Analyze by Market

We have features for every step of the way.

Leveraging the PINNACLE Network for Practice-Level CV Care Delivery in the ACO Environment
3rd Party Reporting Services
Increasingly Important with HCR

NCDR Reporting Services
(Consent required)

Health Plans
State and Federal Regulators
Regional QI Efforts
Health Systems

STS/ACC TVT Registry in Era of HCR
New Paradigm for NCDR Partnerships!!

CMS
Centers for Medicare & Medicaid Services

FDA
U.S. Food and Drug Administration
Protecting and Promoting Your Health

Accountable Care Organizations
Reducing Costs Without Rationing
Still Missing: Payment Alignment!!

Healthy Consumer
Continued Health
Preventable Condition
No Hospitalization
Acute Care Episode
Efficient Successful Outcome
High-Cost Successful Outcome
Complications, Infections, Readmissions

Better Outcomes/Higher Quality

CPGs, AUCs, NCDR
Comparative Effectiveness & Appropriate Use
NCDR in HCR

- UDI system incorporated into EHR
- National and international device registries
- Modernize adverse event reporting
- New methods for evidence generation, synthesis and appraisal

Public Reporting: It Can and Will be Done

NCDR partnering with CMS - Hospital Compare

CathPCI and ICD Registry Quality Elements

NCDR Metrics for Public Reporting

<table>
<thead>
<tr>
<th>Measure</th>
<th>Source Registry</th>
<th>External Data</th>
<th>NQF Endorsed</th>
</tr>
</thead>
<tbody>
<tr>
<td>HF/LVSD: ACE/ARB Therapy at Discharge</td>
<td>ICD</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CAD/IM Beta Blocker at Discharge</td>
<td>ICD</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>HF/LVSD: Beta Blocker at Discharge</td>
<td>ICD</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Aspirin at discharge</td>
<td>CathPCI</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Thienopyridine at discharge</td>
<td>CathPCI</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>PCI in-hospital risk adj. mortality (patients with STEMI and patients without STEMI)</td>
<td>CathPCI</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ICD 30 or 90 day complication rates</td>
<td>ICD</td>
<td>Yes – CMS</td>
<td>Yes</td>
</tr>
<tr>
<td>30-day all cause risk adj. mortality (patients without STEMI or cardiogenic shock and patients with STEMI or cardiogenic shock)</td>
<td>CathPCI</td>
<td>Yes – CDC</td>
<td>Yes</td>
</tr>
<tr>
<td>30-day risk standardized readmission rates for PCI</td>
<td>CathPCI</td>
<td>Yes – CMS</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Composite measure requested by NQF
Your Performance is Being
Tracked and Reported
Whether you know it or not!

www.hospitalcompare.hhs.gov

Physician Level Public Reporting on Horizon!!

CMS – www.physiciancompare.hhs.gov

Mandated by the Affordable Care Act of 2010. By 2014 this site will have information on your quality of care and patient experience that can help consumers learn more about the care provided by Medicare-participating physicians.

Healthcare Reform

“Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning.”

Winston Churchill
“The right objective for health care is to increase value for patients, which is the quality of patient outcomes relative to the dollars expended.”

- Michael Porter

President Obama:
“Congratulations!! ACC’s NCDR registries are a key component for successful ACA implementation to achieve meaningful HealthCare Reform”