HEALTHCARE in The New Millenium

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The Heart of “Leadership”

Figuring on what is going on in a complex world

- Challenges and Solutions?
- Disparity (economic, ethnic, racial, medical errors, work hours, etc.)
- Physician vs Patient Perspective
- Industry Reaction
- Variations in Delivery
- Conflict of Interest
- Evidence based Practice——
  Practical applications in clinical practice and research

‘The Facts’—

Public Perception

Medicine and Economics

Overall Health of a Nation
U.S. ranks 37th in the world

The state of our health as a nation (US) is not the best in the world despite spending more than one trillion dollars/year — why?

Why should you care?—— Choice: Proactive vs. Reactive

The
Health
of a Nation

Economic Disparity


Usual Concept of Health Care Costs

$1.3 trillion and going up— can we afford it?

More Likely view of Healthcare cost

Racial Disparity

Economic Disparity

Hispanic vs White

Hispanic vs White

No Change in Surgeons’ Weekly Hours of Work

Source: AMA, 1987 and 2000-02

Physician Perspective

It is time to change our image.

Reimbursement

Income = Price x Quantity – Costs

...And the (inflation adjusted) THR price has fallen by 54%

Source: Letter of 7/17/2000 from HR Desmarais to S. Bastacky

Avg. Medicare Payment for THR (CPT 27130) in 2000S$
So Productivity (Q/Surgeon) is Rising at About the Same Rate Reimbursements (P) Are Falling


Estimated Dollars Available Under Medicare Risk Contracts in Excess of Amount Available to Residents of Minneapolis

<table>
<thead>
<tr>
<th>Location</th>
<th>Dollars Available</th>
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<tbody>
<tr>
<td>Miami</td>
<td>$4,503</td>
</tr>
<tr>
<td>Manhattan</td>
<td>$4,181</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>$3,183</td>
</tr>
<tr>
<td>Chicago</td>
<td>$2,473</td>
</tr>
<tr>
<td>Atlanta</td>
<td>$1,788</td>
</tr>
</tbody>
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Reimbursement Disparity based on where you live !

More Medicare Spending Doesn’t Cure Under Service

J. Wennberg MD MPH
Dartmouth Atlas Healthcare

What else ?
Industry is no longer waiting in the wings !

The Leapfrog Group:
Consumer Driven Healthcare Quality Improvement

Fortune 500 Companies

Mark Chassin

The Airline Industry The Medical Profession

Process Approach... Six Sigma

THE NEED FOR SIX SIGMA IN HEALTHCARE

Source: General Electric

Healthcare delivery has enormous variability,... resulting in significant errors and wasted resources
The Clinician and The Public Dilemma

Clinical and public health policies, like other public policies, may sometimes be based less on rational decision-making than on the combined influences of partisan interests.

The scientific evidence may be one of these interests, but not always the dominant one, i.e.

Science is not always the driver of healthcare utilization
An Opportunity!

Proliferation

“Evidence”

Consensus analysis
– only 10-14% useful information

Citation Analysis
– Most articles (~50%) never cited again


Fodder for the government, HMO’s, large payers, unions, and legal professions, etc.


Consequences

Public Trust Erodes
Clinical Unrest
Policy Decisions, e.g.
Funding Redirected
Reimbursement Reduced

1992-2002 Spine Medicare Fee Schedule

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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>22554 Arthrodesis, cervical below C2</td>
<td>$1,354</td>
<td>$1,662</td>
<td>$1,306</td>
</tr>
<tr>
<td>22612 Arthrodesis, single level, lumbar</td>
<td>$1,255</td>
<td>$1,807</td>
<td>$1,449</td>
</tr>
<tr>
<td>22614 Arthrodesis, each add'l Vertebra</td>
<td>N/A</td>
<td>$533</td>
<td>$399</td>
</tr>
<tr>
<td>22842 Posterior Segmental Instrumentation; 3-6 segments</td>
<td>$1,414</td>
<td>$842</td>
<td>$776</td>
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</table>


What is our responsibility?

The medical profession must embrace the development of standardized best practices – and view this challenge not as an assault on clinical autonomy, but rather as a commitment to clinical excellence.

To the extent the public and their representatives distrust the profession, they are likely to demand greater regulation of practice and research and are likely to provide fewer resources for both.

Since the acts of individual physicians can affect public confidence in the whole profession, individual professionals have an obligation, both to the public and to the profession, to make sure their own conduct does not impair their colleagues capacity to practice medicine or conduct research.

Thompson, D.F.
NEJM 1993
Conflict of Interest

Authors are much more likely to support calcium-channel blockers for cardiac conditions if they had a financial relationship with the manufacturer (drug company).

70 articles were reviewed (March '95-Sep '96)
- 23 critical
- 30 supportive
- 17 neutral

\( \frac{2}{3} \) had a financial relationship

**only two authors disclosed the potential conflict**

96% of supportive manuscripts had financial relationships.

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Take home message:

Company-funded trials have a high likelihood of favoring the company’s product.

*Adds to public suspicion*

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**Conflict of Interest: Art or Science? The Hippocratic Solution**

“Conflict of interest need not be a conflict within our minds. We must remain guided by our Hippocratic principles and our individual values. Physician/scientists need the freedom to explore openly and honestly and not fear the reprisals of a system. This can occur as long as we continue to respect and improve that system with continued open and honest discourse.”

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**The Market**

**Analgesics vs. NSAIDS**

- 184 patients with osteoarthritis
- Randomized, double-blind trial
- 2400 or 1200 mg of ibuprofen per day or 4000 mg of *acetaminophen* per day

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**Editorial**

**Conflict of Interest: Art or Science? The Hippocratic Solution**

Conflict of interest need not be a conflict within our minds

Guiding Principles

1) Veracity of results cannot be compromised.
2) Oversight is imperative by a disinterested party.
3) Financial and non-financial incentives must be addressed from the outset as must institutional and investigator requirements to disclose.
4) Proprietary rights and intellectual property should be acknowledged—right to publish must be assured.
Given limited dollars

The public wants healthcare to improve and they want their doctors to improve it!

Have we lost our way?

I don’t believe so!!

But if the science has been lost in the rush for money.

We have lost our way.

How do we, as physicians, re-establish ourselves as stewards of our profession?

- We accept accountability
- We work together - Collaborative Learning
- We must be willing to change our behavior
- We must rely on good data to drive that change

Evidence-Based Practice al a Cochrane

1) Identify specific question from practice (diagnosis, treatment, etiology, prognosis)
2) Search and retrieve external evidence (literature)
3) Critically appraise re: the quality of material
4) Distill raw data into clinically relevant information
5) Implementing information into clinical decisions, e.g., integrating external and internal information with patient expectations and preferences

So, --How good are we at using the evidence to practice?
Is Spine Surgery effective?

Five Year Trends in Spine Surgery

Spine Surgery: 37%
Fusion: 72%
Fusion + Hardware: 106%

The Surgical Signature for Spine Surgery in Eight California HRRs (1996-97)

Unexplained Disparities by Age, Sex, and Race

Spine Surgery (1996)


Percent of “Ideal” Patients Receiving Aspirin at Discharge Following AMI (1994-95)

Ratio of Rates of Mastectomy for Breast Cancer to the U.S. Average (1995-96)
Which rate is right?
Given good(evidence-based) information the Patient should decide

A Possible Solution to Variation

Shared Decision-Making
Informed Choice

17 Decision aid trials
- Surgical
  - Coronary (2)
  - Prostate (2)
  - Breast (1)
  - Circumcision (2)
  - Dental (1)
  - Spine (2)**
- Hip (In process AAOS)
- Knee (In process AAOS)
- Medical
  - Hormones (2)
  - Vaccine
  - Hep B (1)
- Screening/Testing
  - PSA (3)
  - Amniocentesis (2)
  - BRCA1 gene testing (1)

Results of Shared Decision Making

HNP 30%
Stenosis 10%

Patients felt better informed and more knowledgeable

Physicians Typically Underestimate Patient Desire for Information

Amount of information received versus how much wanted
- Much more 7%
- A little less 7%
- About right 86%

How to Choose?

In Orthopedics---
many times there isn’t necessarily one obvious treatment, one solution that’s right for a particular patient.
Clinical trials are indispensable.

They will continue to be an ordeal. They lack glamour, they strain our resources and patience, and they protract the moment of truth to excruciating limits. Still, they are among the most challenging tests of our skills.

I have no doubt that when the problem is well chosen, the study is appropriately designed, and that when all the populations concerned are made aware of the route and the goal, the reward can be commensurate with the effort.

If, in major medical dilemmas, the alternative is to pay the cost of perpetual uncertainty, have we really any choice?

Donald Fredrickson, M.D.
Can Patients and Their Doctors Make Better Decisions?  

**YES!!**

- Informed Choice (SDM) using “evidence-based medicine”

**Which rate is right?**

Given useful, evidence-based information the *patient* should decide!!

**The Heart of Leadership**

*Figuring out what is going on in a complex world*

Informed Choice

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**SPORT Sites**

---working together we can make a difference!!

**SPORT**

Spine Patient Outcomes Research Trial(s)

---model of new of potential partnerships---

S P O R T  uses 1 video program to explain risks and benefits of surgery for three different back surgeries:
- Fusion
- Foraminal Decompression
- Diagnostics Epidural Steroids

Funded by: The National Institute of Arthritis and Musculoskeletal and Skin Diseases and the Office of Research on Women's Health, the National Institutes of Health, and the National Institute of Occupational Safety and Health, the Centers for Disease Control and Prevention

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“Knowledge is Power”

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**Norman Rockwell, The Saturday Evening Post, October 27, 1917**