The Perfect Storm in Health Care

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University of Pittsburgh Medical Center

Health bill wins final approval
Senate, House pass repeal/replace legislation after lengthy sessions

Healthcare.gov fails to meet Obama’s pledge to sign up 5 million

The Perfect Storm in Health Care
In 2010, Patients will be growing older, and living longer...

- People 65+ are the fastest growing segment of the population
- Seniors over age 65 will increase by more than 50% by 2020
- By 2010 average life expectancy will be 88 for women and 76 for men
- One third of the population turned 50 in 1996 and will reach 65 in 2011
- Medicare will become the #1 customer of every hospital and physician

Cost of Failure to Enact Reform

Pennsylvania:
- 1,653,000 uninsured
- 61.6% increase in health care costs

Average annual health care costs for Medicare enrollees age 65 and over, in 2004 dollars, by age group, 1992–2004

RN Economics
CRNA Workforce
AANA Membership

CRNA Age Distribution

CRNA Retirement Projection

MD Age Distribution

Advances in Medicine & Technology

The Successes

- Life expectancy increased
  - 2003 - 77.6

- From 1970 to 2002, mortality from
  - Stroke decreased by 63%
  - Heart disease decreased by 2%
  - Cancer decreased by 2.7%
The Failures

- Americans between 55-64 years old
  - 50% incidence of hypertension
  - 40% incidence of obesity
- Deaths
  - From diabetes up 45%
  - From COPD up 102%

Healthcare Spending as % GDP


National Health Expenditures (current dollars, billions)


Life expectancy and national expenditures

Source: Organization for Economic Cooperation and Development, OECD Health Data 2004

INTERNATIONAL HEALTH COMPARISONS

<table>
<thead>
<tr>
<th>Country</th>
<th>Health spending per capita, 2002</th>
<th>Private share of spending</th>
<th>Life expectancy</th>
<th>Infant mortality per 1,000 births</th>
<th>Physicians per 1,000 people</th>
<th>Nurses per 1,000 people</th>
<th>Hospital beds per 1,000 people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>$2,931</td>
<td>30%</td>
<td>79.7</td>
<td>5.2</td>
<td>2.1</td>
<td>9.9</td>
<td>3.2</td>
</tr>
<tr>
<td>France</td>
<td>$2,736</td>
<td>24%</td>
<td>79.2</td>
<td>4.5</td>
<td>3.3</td>
<td>7.0</td>
<td>4.2</td>
</tr>
<tr>
<td>UK</td>
<td>$2,169</td>
<td>17%</td>
<td>78.1</td>
<td>5.0</td>
<td>2.0</td>
<td>9.0</td>
<td>3.9</td>
</tr>
<tr>
<td>US</td>
<td>$5,267</td>
<td>55%</td>
<td>77.1</td>
<td>6.8</td>
<td>2.7</td>
<td>8.1</td>
<td>2.9</td>
</tr>
</tbody>
</table>

The Uninsured United States

Percentage of Respondents Report Any Error: Medical Mistake, Medication Error, or Test Error in Past 2 Years

Best Healthcare System in the World?

Percentage of Respondents Reporting That They Did Not Obtain Needed Treatment Because of Cost
Six Sigma seeks to improve the quality of process outputs by identifying and removing the causes of defects (errors) and minimizing variability in manufacturing and business processes.

- 20,000 lost articles of mail per hour
- Unsafe drinking water for almost 15 minutes each day
- 5000 incorrect surgical operations per week
- Two short or long landings at most major airports each day
- 200,000 wrong drug prescriptions each year

Our “good” health care system

- Kills almost 100,000 Americans every year due to medical error
- Gives 1 out of every 100 patients the wrong medicine
- Gives one out of every 16 patients an infection

Your chances of dying from avoidable human error are 10,000 times greater here than here.

Our “good” health care system

- 99% Good (3.8 Sigma) means:
  - 20,000 lost articles of mail per hour
  - Unsafe drinking water for almost 15 minutes each day
  - 5000 incorrect surgical operations per week
  - Two short or long landings at most major airports each day
  - 200,000 wrong drug prescriptions each year

- 21% antibiotics for colds
- Doctors prescription writing
- Airline baggage handling
- Domestic airline fatality rate
- Domestic airline baggage handling
- Hospitalized patients injured by negligence

Gail Wolf, 2006
Pay for Performance (P4P)

- Surgical Care Improvement Project (SCIP)
  - Improving quality of surgical care by reducing postoperative complications
  - 5.4% of surgical patients suffer postoperative complications that are preventable
  - 2.4 million additional hospital days
  - $9.3 billion
  - Results indicate monetary reward based on incentives

SCIP Process and Outcome Measures

- **Infection**
  - SCIP INF 1: Prophylactic antibiotic received within one hour prior to surgical incision
  - SCIP INF 2: Prophylactic antibiotic selection for surgical patients
  - SCIP INF 3: Prophylactic antibiotics discontinued within 24 hours after surgery end time (48 hours for cardiac patients)
  - SCIP INF 4: Cardiac surgery patients with controlled 6 a.m. postoperative serum glucose
  - SCIP INF 5: Postoperative wound infection diagnosed during index hospitalization
  - SCIP INF 6: Surgery patients with appropriate hair removal
  - SCIP INF 7: Colorectal surgery patients with immediate postoperative normothermia

- **Cardiac**
  - SCIP Card 1: Non-cardiac vascular surgery patients with evidence of coronary artery disease who received beta-blockers during the preoperative period
  - SCIP Card 2: Surgery patients on a beta-blocker prior to arrival that received a beta-blocker during the preoperative period
  - SCIP Card 3: Intra- or postoperative acute myocardial infarction (AMI) diagnosed during index hospitalization and within 30 days of surgery
Healing the System

1. National Health Care Plan
   - Access for all
2. Tiered system
   - Covered services
   - Retail services
3. Appropriation of Care
   - Decision process
   - Personal responsibility
4. Retirement age to 92

Goals

ACCESS QUALITY COST

Embracing Change

- Chance to plan for the future
- Skill set will determine place in healthcare
- Demonstrable clinical quality and patient safety
- Expense and waste reduction
- Information technology transformation
- Revenue growth
- Enhanced community relations
- Exceptional governance and leadership

SUMMARY OF CERTIFIED REGISTERED NURSE ANESTHETIST (CRNA) CLINICAL PRIVILEGING

<table>
<thead>
<tr>
<th>Privilege Description</th>
<th>Presbyt.</th>
<th>Magee</th>
<th>Shadyside</th>
<th>South Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preanesthetic assessment, preparation, and evaluation</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Requesting laboratory and diagnostic studies</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Selecting, obtaining, ordering, and/or administering preoperative medications and fluids</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Obtaining informed consent for anesthesia</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Develops and implements anesthetic plan</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Initiates and maintains the planned anesthetic technique</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>General anesthesia</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Monitored anesthesia care (intravenous sedation)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Regional anesthesia</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Subarachnoid</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Epidural</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Caudal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper extremity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower extremity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local infiltration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topical</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Transtrachean</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Intercostal</td>
<td></td>
<td></td>
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</table>
A History of Quality Care

Needleman/Minnick OB Anesthesia Study in Health Services Research

Simonson OB Study in Nursing Research
[Simonson, DC, Ahern, MM, Hendryx, MS. “Anesthesia Staffing and Anesthetic Complications During Cesarean Delivery.” Nursing Research. 2007;56:9-17]

Pine Study in the AANA Journal

Bechtoldt Study

Cost Containment Scenario

Assumptions
- Anesthesiologist salary: $450,000
- CRNA salary: $160,000
- Benefits included Costs of healthcare insurance Vacation, meeting, holiday

Scenario
- 20 O.R. hospital
- 24/7 coverage

Cost Projection

<table>
<thead>
<tr>
<th>Scenario</th>
<th>MD Only</th>
<th>CRNA:MD 2:1</th>
<th>CRNA:MD 3:1</th>
<th>CRNA:MD 4:1</th>
<th>CRNA:MD 6:1</th>
<th>CRNA Only</th>
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<tbody>
<tr>
<td>MD FTE</td>
<td>32.5</td>
<td>12.9</td>
<td>8.65</td>
<td>6.54</td>
<td>4.5</td>
<td>0</td>
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<tr>
<td>CRNA FTE</td>
<td>0</td>
<td>32.5</td>
<td>32.5</td>
<td>32.5</td>
<td>32.5</td>
<td>32.5</td>
</tr>
<tr>
<td>MD Salary Cost</td>
<td>$14,825,000</td>
<td>$5,805,000</td>
<td>$5,822,500</td>
<td>$2,943,400</td>
<td>$2,025,000</td>
<td>0</td>
</tr>
<tr>
<td>CRNA Salary Cost</td>
<td>$14,825,000</td>
<td>$5,822,500</td>
<td>$5,805,000</td>
<td>$5,200,000</td>
<td>$5,200,000</td>
<td>$5,200,000</td>
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<tr>
<td>Total Salary Cost</td>
<td>$29,650,000</td>
<td>$11,627,500</td>
<td>$11,627,500</td>
<td>$8,143,400</td>
<td>$7,225,000</td>
<td>$5,200,000</td>
</tr>
<tr>
<td>Potential Savings</td>
<td>0</td>
<td>$5,532,500</td>
<td>$6,481,600</td>
<td>$7,400,000</td>
<td>$9,425,000</td>
<td></td>
</tr>
</tbody>
</table>
What's Ahead?

CRNA Practice Predictions

- Medical Direction
  - 4:1, 6:1, 8:1 ...
- Military Model
  - PS 1 & 2 patients → CRNA only
  - PS 3, 4, 5, 6 → team
- Other providers
  - Anesthesiology Assistants (AA)
  - RN Sedationists
  - Computer-adaptive sedation equipment

Suggestions for Practice Advocacy

- Professionalism
  - You’re always on stage
  - Customer service
  - Customer Service
  - Knowledge and skill
  - Know your game
- Contribution to professional growth
  - Become involved
    - In the workplace
    - In the local community
    - In the state
    - At the national level
  - Pay it forward
- Stay informed