Robert Probe MD
President, Orthopaedic Trauma Association
Scott & White Healthcare
Texas A&M College of Medicine

THE CHANGING VALUE PROPOSITION OF THE ORTHOPAEDIC TRAUMATOLOGIST
Healthcare

Orthopaedic Trauma
November 1984 - Attendance

Name (Print)

Ken Johnson
Bob Bucholz
Bruce Browner
Tom Comfort
Keith Mayo
Chuck Edwards
Bob Bremerich
Allie Pake
Ramone B. Gustico
Charles E. VanZandt
W. C. Foster

Hosp.

UTMS Houston - Hermann Hosp.
St. Paul-Ramsby M.C.
Harborview

Med. College Va., Richmond
ORTHOPAEDIC TRAUMA HOSPITAL ASSOCIATION
STUDY GROUP MEETING

OCTOBER--1982

1. Standard Classification of Fracture and Evaluation of Treatment Results
   Ramon B. Gustilo, M.D.---Hennepin County Medical Center
   Michael Chapman, M.D.---University of California

2. Pelvic Fracture
   Renner Johnston, M.D.---Denver General Hospital

3. Acetabular Fracture
   Thomas Comfort, M.D.---St. Paul-Ramsey Medical Center

4. Young Femoral Neck Fractures
   Richard F. Kyle, M.D.---Hennepin County Medical Center

5. Immediate Fixation of Fracture in the Multiple Trauma Patient
   Sigvard Hansen, M.D.---Harborview Medical Center

6. Spine Fracture
   Taylor Smith, M.D.---University of Texas Health Center
   Charles Edwards, M.D.---University of Maryland
   Francis Denis, M.D.---St. Paul-Ramsey Medical Center

7. Pathologic Fracture
   Edward Haberman, M.D.---Montefiore Hospital and Medical Center
Prophylactic Antibiotics in Hip Fractures

A Double-Blind, Prospective Study*

BY J. W. BURNETT, M.D.†, RAMON B. GUSTILO, M.D.‡, DAVID N. WILLIAMS, M.D.§, AND ALLAN C. KIND, M.D.§, MINNEAPOLIS, MINNESOTA

From the Department of Orthopaedic Surgery, Hennepin County Medical Center, Minneapolis
Immediate Internal Fixation of Open Ankle Fractures

REPORT OF THIRTY-EIGHT CASES TREATED WITH A STANDARD PROTOCOL

BY JONATHAN L. FRANKLIN, M.D.*, KENNETH D. JOHNSON, M.D.†, AND SIGVARD T. HANSEN, JR., M.D.*, SEATTLE, WASHINGTON

From the Harborview Medical Center, Seattle
Treatment of Tibial Fractures by Reaming and Intramedullary Nailing*

BY LAWRENCE B. BONE, M.D.†, AND KENNETH D. JOHNSON, M.D.†, DALLAS, TEXAS

From the University of Texas Health Science Center at Dallas, Dallas
AAOS 1986 Census: Members with Fellowships

- Hand: 900
- Peds: 300
- Spine: 200
- Sports: 150
- Arthroplasty: 150
- Trauma: 100

Total: 128
Change of Name: Dr. Chapman proposed changing the name of the organization from Orthopedic Trauma Hospital Association to Orthopedic Trauma Association. After some discussion, this was unanimously accepted by the Board.

It is recommended that a new committee be established this coming year to study the possible standardization and accreditation of fellowships. In addition, this committee may want to look at the future of certificates of added qualification.
Orthopaedic Trauma Fellowship Growth
Cumulative Orthopaedic Trauma Fellow Count

- Totals
- Fellows
ACS Verification Visits 1987-2012
(Including consults and on-site focused visits)

Number of Visits

- All Trauma Centers
- Level I, II, III Trauma Centers
- Level I, II Pediatric Trauma Centers

2012 tentative visits scheduled and those pending as of 08/15/2012
Agency Healthcare Research & Quality

- Treatment, fracture or dislocation of hip and femur
- Treatment, fracture or dislocation of lower extremity (other than hip or femur)
- Other fracture and dislocation procedure

44 States Reporting
Mission Accomplished!

What’s Next?
100,000 Preventable Deaths in US Hospitals
Denosumab for Prevention of Fractures in Postmenopausal Women with Osteoporosis

Steven R. Cummings, M.D., Javier San Martin, M.D., Michael R. McClung, M.D., Ethel S. Siris, M.D., Richard Eastell, M.D., Ian R. Reid, M.D., Pierre Delmas, M.D., Ph.D., Holly B. Zoog, Ph.D., Matt Austin, M.S., Andrea Wang, M.A., Stepan Kutilek, M.D., Silvano Adami, M.D., Ph.D., Jose Zanchetta, M.D., Cesar Libanati, M.D., Suresh Siddhanti, Ph.D., and Claus Christiansen, M.D., for the FREEDOM Trial
International Comparison of Spending on Health, 1980–2009

Average spending on health per capita ($US PPP*)

Total expenditures on health as percent of GDP

United States
Canada
Germany
France
Australia
United Kingdom

* PPP=Purchasing Power Parity.

Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2011.
Increases in Health Insurance Premiums Compared with Other Indicators, 1999–2010


Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2011.
National Debt

U.S. NATIONAL DEBT CLOCK

The Outstanding Public Debt as of 01 Oct 2012 at 06:46:44 PM GMT is:

$16,029,966,411,348.18

The estimated population of the United States is 313,606,343 so each citizen's share of this debt is $51,114.93.
Orthopaedics Trauma Cost

- 1,000,000 Annual admissions for fractures
- $35,000 charges per admission
Demographics
The unseen cost of fracture care

- Time lost from work
- Permanent Impairment
Does the **SURGEON** always participate effectively and to your satisfaction in the time out procedure before initiation of the operation?

**Not Significant**
Ernest Codman

- “end result card”
- 1914 had his plan for surgeon competence refused
- 1911-1916:
  - 337 discharged patients
  - 123 errors
- End result hospital
Process of ED Antibiotic Administration

- Orders filled by first available
- 32 batch pathways
- Print labels for new medication
- Accudose data
- Medication warnings
- New orders
- 768 pathways for a drug to follow
- All orders and phone calls go to first available

Pharmacy Order Entry

- STAT
- Accudose refill
- PT 1
- PT 2
- PT 3
- PT 4
- R Ph
- Comp
- R Ph Report to RN
- External Phone
- RN questions to R Ph
- What is mix, volume, and timing of order?
- STAT Fax
- ASAP Fax
- Reg Fax
- Reg Fax
- Phone
- Phone
- Phone
- Phone
- Inventory batch room
- R Ph goes to batch and fills STAT order

Pharm Tech
- Tube system PRN
- RN packs up med dose
- Pharm Tech
- Accudose Refill
- R Ph
Minimum Standard for Hospitals

1917

Commission on Cancer

1998

NAPBC

NATIONAL ACCREDITATION PROGRAM FOR BREAST CENTERS

ACOSOG

American College of Surgeons Oncology Group

ACSNBCN

American College of Surgeons National Bariatric Surgery Center Network

ACSM

American College of Surgeons

NSQIP

National Surgical Quality Improvement Program

ACS NSQIP

American College of Surgeons National Surgical Quality Improvement Program

Committee on Trauma

1950

2004

2011
ACS NSQIP: Data Matters

82% of hospitals decreased complications

66% of hospitals decreased mortality

250-500 complications prevented annually per hospital

Original Articles

Does Surgical Quality Improve in the American College of Surgeons National Surgical Quality Improvement Program: An Evaluation of All Participating Hospitals

Bruce L. Hall, MD, PhD, MBA, FACS, Barton H. Hamilton, PhD, Karen Richards, BS, Karl Y. Bilmoria, MD, MS, Mark E. Cohen, PhD, and Clifford Y. Ko, MD, MS, MSHS, FACS

Background/Objective: The National Surgical Quality Improvement Program (NSQIP) has demonstrated quality improvement in the VA and pilot study of 14 academic institutions. The objective was to show that American College of Surgeons (ACS)-NSQIP helps all enrolled hospitals.

Methods: ACS-NSQIP was used to evaluate improvement in hospitals longitudinally over 3 years (2005-2007). Improvement was defined as reduction in risk-adjusted "observed-expected" (OE) ratios between periods with risk adjustment held constant. Multivariable logistic regression-based adjustment was performed and included indicators for procedural groups. Additionally, morbidity counts were modeled using a negative binomial model, to estimate the number of avoidable complications.

Results: Multiple perspectives reflected improvement over time. In the analysis of 118 hospitals (2006-2007), 66% of hospitals improved risk-adjusted mortality (mean OE improvement: 0.174, P < 0.05) and 82% risk-adjusted complication rates (mean improvement: 0.114, P < 0.05). Correlations between starting OE and improvement (0.843 for mortality, 0.652 for morbidity, as well as relative risk, revealed that initially worse-performing hospitals had more likelihood of improvement. Nonetheless, well-performing hospitals also improved. Modeling morbidity counts, 143 hospitals (2007) avoided ~9586 potential complications = 52% hospital. Due to sampling this may represent only 1 of 5 to 10 of the true total. Improvement reflected aggregate performance across all types of hospitals (community, academic, etc.). Changes in patient risk over time had important contributions to the effect.

Conclusions: ACS-NSQIP indicates that surgical outcomes improve across all participating hospitals in the private sector. Improvement is reflected for both poor- and well-performing facilities. NSQIP hospitals appear to be avoiding substantial numbers of complications: improving care, and reducing costs. Changes in risk over time merit further study.

Methods: The NSQIP general approach to data collection and performance evaluation has been described previously. In brief, the program has traditionally focused on general and vascular surgery (outside of the VA) although a multispecialty approach is now available. The program’s emphasis is critical to reliable clinical data (not administrative) abstracted from the medical record by a trained data expert. The program focuses on 30-day outcomes (whether or not a patient has been discharged from their initial admission) via direct ascertainment of the 30-day time point. Outcomes include 21 rigorously defined morbidity (including the following categories: wound, respiratory, urinary tract, central nervous system, cardiac, and other). Eligible cases include major general and vascular cases under general surgical and vascular anesthesia, subject to eligibility and accuracy limits. Cases are sampled in a systematic, temporal fashion. As a result, there has been data collection is coordinated by a dedicated full time nurse or trained health information expert who specifically trained in NSQIP methods and data definitions, who are regularly audited, and who maintain a degree of separation from individual surgeons. Specific materials describing the qualifications, training, and auditing of these personnel, as well as data definitions and data collection protocols, are available online from the ACS-NSQIP website. A prominent aspect of the approach is regular assessment of inter-rater reliability. As a result of multiple reinforcing approaches, data integrity within the program has been excellent and consistently improving well. For instance, inter-rater reliability audits revealed that in 2005 total disagreements across the program were at 3.15% (for nearly 40,000 audited fields), and by 2008 total disagreements were at 1.60% (140,000 audited fields).
The Value of an Organized Fracture Program for the Elderly: Early Results

Stephen L. Kates, MD,* Daniel A. Mendelson, MS, MD,† and Susan M. Friedman, MD, MPH†

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<th>Complications</th>
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<td>97</td>
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<td>306</td>
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<tr>
<td>Predicted</td>
<td>194</td>
<td>32</td>
<td>1177</td>
</tr>
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</table>
Disclosures

- Board of Trustees of Scott & White Healthcare
  - $2.4 Billion Not for Profit Care Provider in Central Texas
  - 13 Hospitals
  - 1,300 Providers
  - 70 Clinics

- Consultant – Stryker Orthopaedics
Prevention

OMG

GET THE MESSAGE.
TEXTING WHILE DRIVING IS A DEADLY DISTRACTION.

Join the conversation:
Visit DecideToDrive.org.

Behind the wheel, there is no such thing as a small distraction.

AUTO ALLIANCE
ORTHOPEDIC TRAUMA
ASSOCIATION

American Academy of Orthopaedic Surgeons
Declining US Traffic Fatalities

US National Highway Traffic Administration
Physician → Diagnostic & Surgical Skill → Patient

Physician → Healthcare Resources → Patient
Economics

The allocation of scarce resources that have alternative uses.
Spectrum of Hospital Affiliation

- Private
- Director
- Comanaged
- Hospital within Joint Venture
- Employed
- Governing
The Value of an Organized Fracture Program for the Elderly: Early Results

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Journal of Orthopaedic Trauma, 2011
Examine variation in care
Pay for Performance

Appropriate use criteria
A Comparison of Fracture Reductions Performed by Physician Extenders and Orthopaedic Residents in the Acute Pediatric Orthopaedic Practice

Christine A. Ho, MD and Philip L. Wilson, MD
Physician Assistants in Orthopaedic Surgery

- 83,466 clinically practicing PA’s
- Ortho Surgery 8,688 approx.
Health-Care Costs Associated with Amputation Reconstruction of a Limb-Threatening Injury

Ellen J. MacKenzie, PhD; Renan C. Castillo, MS; Alison Snow Jones, PhD; Michael J. Bosse, MD; J. Kellam, MD; Andrew H. Pollak, MD; Lawrence X. Webb, MD; Marc F. Swiontkowski, MD; Douglas G. MD; Roy W. Sanders, MD; Alan L. Jones, MD; Adam J. Starr, MD; Mark P. McAndrew, MD; Brenda Patterson, MD; Andrew R. Burgess, MD

1 Center for Injury Research and Policy, Johns Hopkins Bloomberg School of Public Health, 624 North Broadway, Baltimore, MD 21205. E-mail address for E. J. MacKenzie: emackenzi@jhsph.edu
A Prospective Randomized Controlled Trial Comparing Occupational Therapy with Independent Exercises After Volar Plate Fixation of a Fracture of the Distal Part of the Radius

J. Sebastiaan Souer, MD1; Geert Buijze, MD1; David Ring, MD, PhD1

1 Orthopaedic Hand and Upper Extremity Service, Massachusetts General Hospital, Yawkey 2100, 55 Fruit Street, Boston, MA 02114. E-mail address for D. Ring: drng@partners.org

View Disclosures and Other Information
