Follow the Leader: What Medical Education can learn from Geriatrics

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Conclusions

- The purpose of medical education is to improve the health and wellbeing of our patients and our communities.
- Achieving this goal in the 21st century requires a transformation of the professional identity of physicians.
- Geriatricians already embrace this identity and can lead this essential transformation.
20th Century Science: Physics
20th Century Medical Education: Teaching and Reductionism
"Mono-causal, Reductionist, Biomedical"
20th Century Physician: Managing
Success!

- 1958: Coronary arteriography developed (Sones)
- 1961: Risk factors defined
- 1962: First beta-blocker developed (Black)
- 1969: First description of CABG (Favaloro)
- 1972: NHBPEP
- 1976: First HMG CoA reductase inhibitor described (Endo)
- 1980: First implantable cardioverter-defibrillator developed (Mirowski)
- 1979: Coronary angioplasty developed (Grüntzig)
- 1983: CASS
- 1985: TIMI 1
- 1986: GISSI and ISIS-2
- 1985: NCEP
- 1992: SAVE
- 1993: Superiority of primary PCI vs. fibrinolysis in acute MI noted
- 2002: ALLHAT
- 2002: Efficacy of drug-eluting vs. bare-metal stents determined
- 2007: Benefit of cardiac resynchronization therapy in heart failure demonstrated
- 2009: Left-ventricular assist device as destination therapy in advanced heart failure shown to be effective
- 2009: Genomewide association in early-onset MI described
- 2009: Deep gene sequencing for responsiveness to cardiovascular drugs performed
Success!

Life expectancy reaches all-time high

Declines in death rates from most major causes have pushed Americans' life expectancy to a record 77.6 years.

Estimated life expectancy, 1943-2003

By race and gender, 2003

FEMALE
White 80.5
Black 76.1

MALE 75.4
69.2

SOURCE: Centers for Disease Control and Prevention
And Challenges

Percentage of people age 65 and over who reported having selected chronic health conditions, by sex, 2009–2010

- Heart disease: Men 37%, Women 26%
- Hypertension: Men 54%, Women 57%
- Stroke: Men 10%, Women 13%
- Asthma: Men 10%, Women 11%
- Chronic bronchitis or emphysema: Men 28%, Women 21%
- Any cancer: Men 24%, Women 18%
- Diabetes: Men 45%, Women 56%
- Arthritis

NOTE: Data are based on a 2-year average from 2009–2010.
Reference population: These data refer to the civilian noninstitutionalized population.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.
21st Century Science: Biology
21st Century Medical Education: Learning and Integration
21st Century Medicine: Complexity

http://www.nature.com/clpt/journal/v93/n1/images/clpt2012199f1.gif
21st Century Physician: Leading
Core elements of Complexity Leadership

- Focuses on Purpose
- Uncovers communal vision & contrasts with reality
- Catalyzes knowledge sharing, experimentation and innovation
- Adapts to changing contexts and forces
- Facilitates emergent leadership & relationships
- Harnesses structure and incentives to support innovation

Geriatricians as Complexity Leaders: Purpose Driven Vision and Values

- Patient Centered Care
  - Respectful, Comprehensive, Coordinated, High Quality, Safe, Dignified
- Patient Centered Outcomes
  - Compatible with Patient Goals
  - Focus on Function, Quality of Life, and Relief of Suffering
- Patients Supported by Interprofessional Teams

JAGS 53:S245–S256, 2005
Geriatricians as Complexity Leaders: Leadership Strategies and Values

- Advance and Disseminate Knowledge
- Mobilize Expertise from Entire Interprofessional Team
- Synthesize Shared Knowledge to Innovate
- Work in & continuously improve systems
- Adapt to individual patients as well as changing environment
The Success of Complexity Leadership in Geriatrics

- Re-conceptualizing Aging
- Innovating in Care Delivery
- Posing new questions about medical decisions
- Challenging dominant paradigms disease and disability
- Developing others
- Broadening educational venues
- Wise philanthropy
A Continued Challenge

Encouraging physicians to pursue geriatrics as a career.
LEVERAGING PRINCIPLES AND PRACTICE OF GERIATRICS TO REDESIGN MEDICAL EDUCATION
Typical Medical Education Redesign
Patient Centered Care: Optimize Function, Reduce Suffering, Maintain Dignity

MD Role and Identity

Methods and Experiences
Competencies and Evidence

Geriatricians
IP Teams
Geriatrics

New Care and Discovery Models
LEADERS CLARIFY THE VISION
Authentic Patient Centered Care…
Across the Human Lifespan.....

- Develop
- Mature and Reproduce
- Age
Supported by Collaboratively Expert Physicians and Teams
LEADERS
CONTRAST CURRENT REALITY WITH ASPIRATIONAL GOAL
20th Century Physician Competencies

- Clinical Skills
- Biomedical and Behavioral Sciences
21st Century Physician Competencies

- Systems Improvement Skills
  - Foundational knowledge to understand disease and therapeutics

- Direct Patient Care Skills
  - Diagnosing, treating and supporting patients
  - Dedication, empathy, commitment

- Implementation Sciences
  - Understanding and improving patient experience, population health and clinical systems

- Biomedical and Behavioral Sciences
  - Foundational knowledge to optimize care delivery

- 21st Century Physician Competencies
LEADERS BUILD A GUIDING COALITION AROUND COMMON PURPOSE
Common Purpose: Successful Aging

- Neonatologists
  - Low Birth weight

- Pediatricians
  - Childhood Exposure to Violence

- Intensivists
  - Avoidable Harms

- Scientists
  - Precision Medicine
LEADERS ALIGN EDUCATIONAL STRATEGIES WITH VALUES
Core Values

- Patient Centeredness
- Interprofessional teamwork
- Continuous monitoring and improvement of systems of care
- Synthesizing Information into new knowledge
Sequence and Priorities Matter!

Understanding Patient Goals
Transaction Conventional Conversations

Working in Interprofessional Teams
Mono-professional work

Systems Membership and Accountability
Career Exploration

Critical Problem Solving
Mastery of Facts
USE LANGUAGE TO REFRAME
THE MESSAGE
- Caring for the Aged or Optimizing Aging?
- Saving a Life or Supporting Aging?
- Take a History or Explore the patient experience?
- Give Orders or Guide Teams?
LEADERS PROVIDE STRUCTURAL SUPPORT TO GUIDE TRANSFORMATION
Patient Centered Care Requires Learner Centered Learning

Data Discovery Questions Challenges Exploration
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