The New Primary Care Scholars Pathway

An Innovative Accelerated Medical School Curriculum

in undergraduate medical education

linked to primary care careers

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Richard A. Ortoski, DO
- Creation of a New Curriculum -

Encouraging Specific Career Objectives
What are requirements of AOA-COCA for curriculum?

• What do the standards require of an osteopathic medical school curriculum?
  – Standard 6.1.1
  – Standard 6.1
Standard 6.1.1

- The minimum length of the osteopathic medical curricula must be at least four academic years or its equivalent as demonstrated to the COCA.
- Guideline: The curriculum should provide at least 130 weeks of instruction.
Standard 6.1

• The COM must develop and implement a curricula designed to achieve its mission and objectives.

• The education should at least include, but not be limited to, the following areas of biomedical sciences and disciplines related to osteopathic medicine:
Standard 6.1 Guideline:

- Principles, history and practice of osteopathic medicine
- Human anatomy
- Biochemistry
- Pharmacology
- Genetics
- Physiology
- Pathology
- Microbiology
Standard 6.1 Guideline:

- Physical and differential diagnosis
- Medical ethics and legal aspects of medicine
- Internal medicine
- Family medicine
- Pediatrics
- Geriatrics
- Obstetrics and gynecology
- Preventative medicine and public health
- Psychiatry
- Surgery
- Radiology
Historical Perspective

• University of Calgary and McMasters University in Canada have had 3-year programs for 30 years

• In 70’s in US:
  – 10 of 112 US medical schools implemented 3 year programs
  – 47 others had three and four year options
Schools in the 70’s

- Curricula condensed basic sciences into only one year
- Eliminated vacations, extended class hours
- Result – stressed out students and faculty led to abandonment of three-year approach
Other models

• University Missouri, Kansas City
  – Example of a 6 year combined baccalaureate and MD curriculum, cuts two years off training

• 1990’s
  – Combined fourth year of medical school with first year of internship in FM and IM.
  – Dropped because of ACGME requirements for residency
US Schools today

• Duke University *
  – Year 1 Basic Sciences
  – Year 2 Basic Clinical Rotations
  – Year 3 Research Year
  – Year 4 Advanced Clinical Rotations

Texas Tech

• March 2010 declared:
  – First to start a true 3 year curriculum ending in a terminal degree
  – First to start a family medicine tract curriculum over 3 years
  – First to offer a scholarship in a 3 year curriculum
  – First to be approved by a “nationally accrediting authority for medical education”
Let’s create a new curriculum!
How to create a curriculum for today

• What would you like to change?
  – Curriculum Duration?
  – Condensing?
  – Aiming towards a Specific Career Design?
Need
Need

• Medical students are not choosing primary care careers

• Barriers include
  – selection criteria into medical schools
  – perceived lifestyle issues (workload and geography)
  – perceived status among peers
  – salary and indebtedness considerations
Physician Salary Information (http://www.studentdoc.com; accessed August 17, 2005 11:20 am EDT)

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Average Salary after 3 or more years in practice</th>
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<tr>
<td><strong>Top 5</strong></td>
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<tr>
<td>CV Surgery</td>
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<td><strong>Bottom 5</strong></td>
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<td>Neurology</td>
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<td>Family Medicine</td>
<td>$142,516</td>
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Debt load

• 80% carry debt
• 2003 levels of indebtedness
  – Public  $105,000
  – Private  $140,000
• “If present trends were to continue, in six short years, loan payments would consume fully 10 percent of after-tax income for the typical young physician; in 25 years, that figure would rise to an astonishing — and clearly unacceptable — 50 percent.” (Jordan Cohen, AAMC Reporter, May 2005)
Rationale
Rationale

• Schwartz et al (Annals of Internal Medicine, 2005) suggest multiple strategies to increase FP careers
  — Changing reimbursement, increasing government support of primary care research and education, preferentially funding schools with large numbers of FP grads: *probably not in our control*
  — But ...
Schwartz recommendations

• Enhancing the status of FP clinician-educators
  – improving satisfaction and enthusiasm among generalist physician role models

• Recruiting students likely to pursue primary care
  – schools of medicine should redouble their efforts to select and produce primary care physicians

• Implementing effective primary care curriculum: “scholars track” programs, PC fast-track programs
  – facilitating the pathway from medical school to generalist residency

• **These are things we can do!**
Robert C. Bowman, MD’s Data on Matriculation Factors and Primary Care Career Selection

**Most Likely:**
- Schools with lower MCAT scores graduate more family physicians
- Students from counties with less than 50 people/sq mi. choose FP at a rate of 76%

**Least Likely:**
- Higher scoring and younger in medical school is associated with less direct patient care and more emphasis on science and technology careers.
- Students from higher income families
- communities with greater than 1,000,000 people
- younger matriculation age
- least culturally diverse

“By the way, the most mature group of medical students appears to be Accelerated FP grads. The 150 I can track chose rural locations over 50% and urban poverty locations another 30% and teaching another 6%. If you are mature and dedicated you can graduate in 6 years and serve the nation where most needed. If you are not mature and dedicated, you can extend training until ..... and never train enough.”
Accelerated Pathways Have Already Proven Successful

• Dr. Robert Bowman’s data suggests
  – When students are properly selected for maturity and interest in primary care, above all other factors, accelerated tracks lead to the production of dedicated and effective primary care physicians
  – Marshall University’s data support similar outcomes
  – However, those programs that existed are no longer viable
    • Moratorium imposed
    • Licensure issues - FSMB calling for 3 years of postgraduate training nationally
    • HMO issues – many require 3 years of postgraduate training for credentialing
In October of 2008, the Josiah Macy, Jr. Foundation conducted a conference regarding the Medical School Educational Mission. Stated in the summary of this conference was the recommendation to modify curriculum in the medical schools so that graduation may be achieved in 3 years versus the traditional 4 years.
Goals and Objectives
Goals and Objectives

• Overarching goal is to accelerate the 4 year medical school curriculum into 3 calendar years
  – Use available unused time
  – Eliminate extraneous medical school experiences
• Will influence the supply of primary care physicians locally, regionally, and nationally
  – By carefully selecting students
  – By assigning primary care mentors
  – By the early introduction of primary care clinical experiences
Curricular Goals

• Curriculum will be aligned with the core clinical competencies
  – Osteopathic Philosophy and Osteopathic Manipulative Medicine
  – Medical Knowledge
  – Patient Care
  – Interpersonal and Communication Skills
  – Professionalism
  – Systems-Based Practice
  – Practice-Based Learning and Improvement

• Early introduction of clinical experience

• Early ongoing mentoring by primary care physicians over the entire three years
Added Benefit

• Integrating theory with practice in supervised settings
  – Small Groups
  – Early Clinical Experiences

• Increasing pre-clinical self-confidence
  – “Learning by doing” throughout undergraduate education
  – Learning from strong, career-centric role models
Strategies
The PCSP Begins....

- Downward trends in the selection of primary care as a career
- Primary care physicians being part of LECOM’s mission
  - LECOM’s President, John M. Ferretti, D.O., requested that the Department of Primary Care Education, create a plan for an accelerated primary care pathway.
- **April 14, 2005** - A subcommittee of the Department was created to examine the possibility of creating an accelerated primary care pathway.
- **October 2005** – Presentation to AOA Supporters given at AOA Convention
- **May 2006** – AOA COCA Accepted the Substantive Change in Creating the PCSP
• The “accelerated” curriculum for the pre-clinical sciences
  – 8 weeks of a Summer Session
    • The basic sciences curriculum is completed by March of the second calendar year
  – 3 clinical rotations in the 2\textsuperscript{nd} year
  – 13 clinical rotations in the 3\textsuperscript{rd} year
    • Total of 16 rotations
  – With the completion of the final 13 rotations in the spring of the third calendar year, the PCSP students fulfill their graduation curricular requirements of 143 weeks
    • 130 weeks is the minimum COCA requirement
Evolution of a Pathway

• Student Selection
  – Self Selection into a Primary Care Interest Group
  – First 12 weeks of school
    • Small Group Discussions
    • Anatomy Faculty and Grade Evaluations
    • OPP Faculty and Grade Evaluations
    • PCSP Interviews and Application
  – Maturity factors
  – Commitment to Primary Care
Evolution...

• Pre Clinical Years
  – PCSP Courses
    • Independent Study Modules with guided sessions
    • Distant Education Courses and Lecture Based Courses
      – All 4 Pathways Curricular Obligations
    • Development of the Summer Session of 2\textsuperscript{nd} Year 1\textsuperscript{st} Semester
      – Enrichment Module (GI, Cardio, Neuro, Hospice, Health Dept., Radiology, Physical Therapy)
        » Mentors
        » Fall Enrichments (ER, Nursing Home, House Officer)
      – Hematology Module, Behavior Health, Medical Juris Prudence, History & Physical Exam
      – OPP
OPP - Osteopathic Principles and Practices Curriculum

• Summer Session Course
  – Prepared as Table Trainers for rest of OMS 2 Year

• Monthly OMM sessions with Dr. Hendryx during Capstone Experiences

• Designated OMM Rotation in the OMS 3 Year
Evolution...

• Association with Local LECOMT Hospitals
  – Millcreek Community Hospital
  – Meadville Medical Center
  – Clarion Hospital
  – UHS Richmond Heights Medical Center
  – Hamot Medical Center
  – St. Vincent Medical Center
  – Mentors
  – Clinical Rotations
  – Residency Sites
Strategies

• Commitment to primary care **AGREEMENT** after the 1\textsuperscript{st} year completed

• Any student from any pathway has this time frame to switch pathways
  
  • This is the time when the curriculum becomes unique to the pathway

  – Commitment to enter a primary care osteopathic residency directly after medical school graduation

  – Commitment to stay in a primary care career for 5 years after residency graduation
Implementation
Implementation

• Approval by COCA May 2006
  – 6-year pilot period to study students from matriculation to graduation from graduate education

• Awaiting DO degree granted June 2010 after 3rd calendar year
### Overview of PCS Pathway

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- **OMS I - ISP MODULES**: Begin late spring Calendar Yr 1
- **OMS II - ISP MODULES**: Core Rotations
- **OMS III**: Core Rotations, Non Core Rotations

**Legend:**

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MS II Core Rotations

• Family Medicine
• Internal Medicine 1
• Clinical Overview
MS III Core Rotations

• Pediatrics
• Obstetrics/Gynecology
• Internal Medicine 2
• General Surgery
• Medical Selective 1
• Psychiatry
• Osteopathic Manipulative Medicine
Overview of PCS Pathway

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LEGEND:

- OMS I
- OMS II
- OMS III
MS III Non Core Rotations

- Medical Selective 2
- Ambulatory Medicine 1 and 2
- Otorhinolaryngology/Ophthalmology
- Emergency Medicine
- Sub-internship
  - ideally at matched hospital
Additions and Deletions

• Additions
  – Clinical Overview
  – Osteopathic Manipulative Medicine
  – Otorhinolaryngology/Ophthalmology
  – Medical Selective 2
  – Sub-Internship

• Deletions
  – Internal Medicine 3
  – General Surgery 2
  – Emergency Medicine 2
  – MS3 Elective 1 and 2
  – MS4 Elective 1,2,3 & 4
  – Rural Medicine
  – Selectives
    • Primary Care
    • Surgery
    • Core
Value of the Traditional Fourth Year

• Robert Petersdorf, MD
  – former President of the Association of American Medical Colleges
  – has claimed that the fourth year of many medical schools “turns out to be nothing more than a chance to travel about the country or to engage in audition clerkships”
PCSP Class of 2010

- 3 Students (max. 6)
  - 1 Family Medicine
  - 2 General Internal Medicine
  - 0 Pediatrics
PCSP Class of 2011

- 7 Students (max. 8)
  - 5 Family Medicine
  - 1 General Internal Medicine
  - 1 Pediatrics
PCSP Class of 2012

- 10 Students (max. 10)
  - 9 Family Medicine
  - 1 General Internal Medicine
  - 0 Pediatrics
Pathway Assessment

• “Measures of student satisfaction have been consistently higher than the satisfaction of students in each of LECOM’s three other (four-year) learning pathways.”

  — Student Course Evaluations

  — Teaching and Learning Center
PCSP Publications & Presentations

2010 AACOM Annual Meeting
Innovations & Transformation
April 8, 2010
Publications & PRESENTATIONS


- *A Three-Year Accelerated Medical School Curriculum Designed to Encourage and Facilitate Primary Care Careers*, Hershey S. Bell, MD, Silvia M. Ferretti, DO, and Richard A. Ortoski, DO; Academic Medicine, Vol. 82, No. 9 / September 2007

- *The New PCSP: An Innovative Accelerated Medical School Curriculum*, Richard A. Ortoski, DO, Hershey S. Bell, MD; Poster, NE Conference Society of Teachers of Family Medicine, October 2007

- *The LECOM Primary Care Scholars Pathway: An Innovative 3 Year Curricular Design - the First Class*, Richard A. Ortoski, DO; David S. Keith, OMS II; Mark A. Haen, OMS II; Deanne M. Hufnagel, OMS II; Seon-Joo Lee, OMS II; Sibi P. Thomas, OMS II; Richard M. Raymond, Ph.D.; Poster, American Association of Colleges of Osteopathic Medicine (AACOM) Conference, April 2009
• The Enrichment Module - A Student Experience Fostering Humanism in Medicine; Richard A. Ortoski, DO; Mark A. Haen, OMS II; David S. Keith, OMS II; Deanne M. Hufnagel, OMS II; Seon-Joo Lee, OMS II; Sibi P. Thomas, OMS II; Richard M. Raymond, Ph.D.; Poster, American Association of Colleges of Osteopathic Medicine (AACOM) Conference, April 2009

• The Separate Osteopathic Medical Education Pathway: Uniquely Addressing National Needs; Candice Chen, MD, MPH, Fitzhugh Mullan, MD; Academic Medicine, Vol. 84, No. 6 / June 2009

• Reviving Interest in Primary Care; Carolyn Schierhorn, The DO, Vol. 5-, No. 8 / August 2009

• The Development of a 3 Year Curriculum: The Primary Care Scholars Pathway at LECOM; Richard A. Ortoski, D.O. and Richard M. Raymond, Ph.D.; The Virtual Mentor, Approved for Publication, October 2009

• The Creation of a New Curriculum – Encouraging Specific Career Objectives; Richard A. Ortoski, D.O., Christine S. Kell, Ph.D., and Richard A. Raymond, Ph.D.; Accepted Presentation, 2010 AACOM Annual Meeting, April 2010
The Primary Care Scholars Pathway at LECOM

PCSP
2005 - 2010

Pathway Directors:
Richard Ortoski, D.O.
Richard Raymond, Ph.D.