Training our Future Country Doctors
1st and 2nd year RPCT Individual Course Reports

Presented by
Joe Florence, MD, RPCT Director
At Quillen College of Medicine, Medical Student Education Committee (MSEC)
July 5, 2011
Objectives

MSEC participants will be given an overview of RPCT and presented a report of:
• RPCT courses occurring in MS-1 and MS-2 to include:
  – Objectives
  – Core Content
  – Teaching Methods
  – Evaluation Methods
  – Grading structure
  – Summary of Student Feedback
  – Summary of Student Performance
  – Plans for change
• unintended consequences of first year reorganization on RPCT scheduling
Rural Experience

• Rural community based origin
  – James H. Quillen’s Legacy

• Rural mission and Institutional Purpose:
  – with emphasis on community based and inter-professional education
  – special emphasis on addressing the needs of Southern Appalachia in the area of rural health care
ETSU Approach to Rural Curriculum

Teaching-Learning

Community-based Scholarship
Community Services
Interdisciplinary Leaders
Partnerships

Student reflection on future professional value and sense of civic responsibility

Adding to the knowledge of regional community health issues

Using the principles of community based participatory research to address community identified issues and opportunities
RPCT Medical Students

• Elect to participate.
• Formal application process which includes – online application, essays and interview.
• Limited to 25% of the COM Class.
• 2010-2011
  – M1
    • 10 Rogersville
    • 7 Mountain City
  – M2
    • 3 Rogersville
    • 3 Mountain City
RPCT Goals (Quillen COM)

• Increase Rural Primary Care Physicians
• Train Physicians to Function in Health Care Teams
• Equip Physicians To Become Effective Agents (Leaders) of Community Change
RPCT Pedagogical Themes

• Community Based Learning - caring for people in the context of their community
  – Occurs in the rural setting
  – Taught by people from the rural community – “the community is teacher”
  – Community Health and Leadership Training

• Education is experiential
• Education is inter-professional, team based
• Emphasis on Self Directed Learning
Key Concepts of the RPCT

Emphasis on:

- Clinical experience in context of the community
- Health Promotion, Disease Prevention
- Community Based Participatory Research
- Community Assessment and Projects
- Inter-professional Training (Medicine, Nursing, Public Health, Pharmacy, Social Work, Clinical Psychology, Respiratory Therapy, Chaplains)
<table>
<thead>
<tr>
<th>Fall</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Case Oriented Learning and Preceptorship 1 (45 h)</td>
<td>Alternative 1</td>
<td>Alternative 2</td>
<td>Rural Primary Care Clerkship combines 6 weeks of Family Medicine and 6 weeks Community Medicine</td>
<td>Rural Selective (2 - month blocks)</td>
</tr>
<tr>
<td>Communications Skills for Health Professionals (ID) (45 h)</td>
<td>The Practice of Rural Medicine 1 (45 h)</td>
<td>The Practice of Rural Medicine 1A (90 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring</td>
<td>Alternative 1</td>
<td>Rural Case Oriented Learning and Preceptorship 2 (45 h)</td>
<td>Tuesday</td>
<td>Alternative 1 8 wks consecutively in either Rogersville or Mountain City and 4 weeks in rural site with FM focused maternal child care</td>
</tr>
<tr>
<td>Rural Health Research and Practice (ID Public Health Credit) (45 h)</td>
<td>Rural Community Projects (ID – Public Health Credit) (45 h)</td>
<td>The Practice of Rural Medicine 2 (90 h)</td>
<td>Tuesday</td>
<td>Specialty/Subspecialty Clerkship two week clerkships may be taken in a rural community</td>
</tr>
<tr>
<td></td>
<td>Rural Case Oriented Learning and Preceptorship 2A (90 h)</td>
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<td></td>
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</tbody>
</table>
Objectives: COL and Preceptorship 1&2 (Fall and Spring MS-1)

1. Develop skills in locating and acquiring the knowledge and skills to meet health needs of rural patients in context of their community.
2. Develop skills for life long learning
3. With regard to common diseases, collaboratively develop learning objectives and, (after using the skills in objective one,) present both the content identified and the methods used to achieve the learning objectives.
4. Develop skills in interdisciplinary clinical collaboration and recognize the professional roles of the rural health care professionals
5. Develop an approach for addressing cultural competencies and ethical dilemmas of patient care in a rural community.
6. Use rural, clinical experience to validate and to integrate basis science, clinical science and community science domains. Use rural, clinical experience to validate and to integrate basis science, clinical science and community science domains.
7. Develop clinical documentation skills through the SOAP note and Problem Oriented Medical Record.
8. Enhance clinical examination skills through focused clinical encounters and reliance on evidence based references.
Teaching Methods: COL and Preceptorship 1&2 (Fall and Spring MS-1)

• Clinical experiences – community preceptors, continuity in nursing home, special populations (prison); the geriatric patient, children (Head start, elementary school)
• Small group discussion, group and collaborative process
• Case oriented learning (community experiential, clinical experiential, computer based learning, evidence based medicine skills acquisition)
• Temperament Inventory (Keirsey and Myers Briggs)
• Required reading
• Review of written documentation of clinical encounters
• Review of clinical encounters
Teaching Methods: COL and Preceptorship 1&2 (Fall and Spring MS-1)

• Skills:
  – Continuity of care (Nursing home): medical history and problem list, family history and social history, history and physical exam
    • the patient with LBP, diabetes; cardiopulmonary issues
    • Elementary school required evaluations
    • SOAP Notes
  – capillary glucose testing;
  – O2 Sat testing
  – Complete genogram, ADL’s; IADL’s; Mini Mental status;
## Evaluation Methods: COL and Preceptorship 1 (Fall MS-1)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researched Case Oriented learning and clinical experiences (~1-2 pages annotated with references)</td>
<td>10%</td>
</tr>
<tr>
<td>COL – Katie James</td>
<td>10%</td>
</tr>
<tr>
<td>COL – A patient with Low Back Pain</td>
<td>10%</td>
</tr>
<tr>
<td>COL – A Patient with CVA/ Neurological Disorder</td>
<td>10%</td>
</tr>
<tr>
<td>Community Health Resources – Data collection and evaluation completed</td>
<td>10%</td>
</tr>
<tr>
<td>Physical Exam at St Clair Elementary School (Rogersville); Physical Exam at Roan Creek Elementary (Mountain City) – patient evaluations and documentation</td>
<td>10%</td>
</tr>
<tr>
<td>Preceptor day – write up and presentation of patient encounter</td>
<td>10%</td>
</tr>
<tr>
<td>Group interaction/discussions/ participation/ professionalism including Head start Physical exams</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Evaluation Methods: COL and Preceptorship 2  (Spring MS-1)</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Researched Case Oriented Learning Objectives and evaluation of focused history and physical exam skills (10% each day)</td>
<td>30%</td>
</tr>
<tr>
<td>Completed Soap Note from a patient encountered during the preceptorship – (3 notes at 5% each)</td>
<td>15%</td>
</tr>
<tr>
<td>Patient encounters tracking completed and sheets turned in (5% each clinical day)</td>
<td>15%</td>
</tr>
<tr>
<td>Group Interactions/ Discussions</td>
<td>40%</td>
</tr>
<tr>
<td>TOTAL Grade</td>
<td>100%</td>
</tr>
</tbody>
</table>
Objectives: The Practice of Rural Medicine (Fall and Spring MS-2)

1. Develop skills in locating and acquiring the knowledge and skills to meet health needs of rural patients in context of their community.
2. Develop skills for life long learning using iterative, quality improvement process.
3. With regard to common diseases, collaboratively develop learning objectives and, (after using the skills in objective one,) present both the content identified and the methods used to achieve the learning objectives.
4. Develop an approach for addressing the ethical dilemmas of patient care in a rural community.
5. Use rural, clinical and community experiences to validate and to integrate basis science, clinical science, public health and community science domains.
6. Enhance differential diagnoses and interviewing and physical exam skills.
Objectives:
The Practice of Rural Medicine - M2

7. Enhance an understanding of cultural competencies appropriate for clinical practice.

8. Develop clinical medical record documentation skills by gaining familiarity and experience documenting a standard history and physical exam, SOAP note, the problem oriented medical record, as well as focused medical evaluations including pre-participation sports evaluations, DOT occupational health evaluations, and Head Start health evaluations.

9. Complete certification in Advanced Cardiac Life Support

10. Develop an understanding of quality improvement process in the practice of medicine and in the application of evidence based inquiry.
Teaching Methods: The Practice of Rural Medicine (Fall and Spring MS-2)

- Clinical and community experiences
- Continuity Nursing Home clinical experiences (“adopt a patient”)
- Small group discussion, group and collaborative process
- Case oriented learning (community experiential, clinical experiential, computer based learning, evidence based medicine skills acquisition)
- Required/recommended reading
- Didactic sessions and computer assisted learning modules
- SAM (student auscultation mannequin)
- HPS (human patient simulator) and psychomotor skills training
- Required reading
Skills: The Practice of Rural Medicine (Fall and Spring MS-2)

1. History and physical exam with accompanying documentation (H&P)
2. Continuity visits with accompanying documentation (SOAP)
3. Differential Diagnosis
4. Nutrition assessment
5. Dementia screening
6. Mental health screening, attention to anxiety and depression
7. Immunization administration
8. PreParticipation exam
10. School Readiness evaluation: elementary school health exam, Head Start exam
11. BLS and ACLS
12. Spiritual Assessment
13. End of Life / palliative care assessment—Advanced Directives, being part of a hospice team
14. Life long learning process – application of the Quality Improvement process
**Evaluation Methods: The Practice of Rural Medicine (Fall, M2)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparticipation Exams - Participation in class discussion, participation in exams</td>
<td>10%</td>
</tr>
<tr>
<td>DOT planning day - Class participation</td>
<td>10%</td>
</tr>
<tr>
<td>DOT / Occupational Health Exams - Performance of Exams</td>
<td>10%</td>
</tr>
<tr>
<td>Head Start Evaluations</td>
<td>10%</td>
</tr>
<tr>
<td>Preceptor ½ day – participation and write up</td>
<td>10%</td>
</tr>
<tr>
<td>COL – Kidney disease</td>
<td>20%</td>
</tr>
<tr>
<td>COL - Arthritis</td>
<td>20%</td>
</tr>
<tr>
<td>Flu shots – participation, Immunization review</td>
<td>10%</td>
</tr>
<tr>
<td>TOTAL Grade</td>
<td>100%</td>
</tr>
</tbody>
</table>
## Evaluation Methods: The Practice of Rural Medicine M2 Spring

<table>
<thead>
<tr>
<th>Objective</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researched Case Oriented Learning Objectives</td>
<td>10%</td>
</tr>
<tr>
<td>Completed Medical Record documentation activities from a patient encountered during the preceptorship –</td>
<td>25%</td>
</tr>
<tr>
<td>ACLS Certification completion</td>
<td>20%</td>
</tr>
<tr>
<td>Group Interactions/ Discussions/ Presentations of patient encounters including spiritual assessment and end of life encounters</td>
<td>45%</td>
</tr>
<tr>
<td>TOTAL Grade</td>
<td>100%</td>
</tr>
</tbody>
</table>
Interprofessional courses
The two course sequence

- **Spring Semester**
  - Rural Health Research and Practice

- **Fall Semester**
  - Rural Community Health Projects

### Core Content

- Introduce community
- Define health issues
- Assess and identify important dimensions
- Collaborate with community to define and design intervention

Community project partnering with community organization

Define research question to study in response to community organization
COURSE OBJECTIVES/OUTCOMES

• Interdisciplinary health professional teaming in a rural community setting.

• Use community-based principles to evaluate existing and desired health programs and services.

• Partnering with communities to access and research community resources and needs
Conducting assessments

• Assessment methods traditionally used
  – Brain Storming and Affinity Grouping
  – Side walk survey
  – Wind shield survey
  – Focus Group meetings with community boards
  – Community luncheons and informal discussions
  – Screening activities
    • Associated with clinical experiences (BMI, glucose, etc)
    • Health promotion /disease prevention
  – Written or face-to-face surveys
COURSE OBJECTIVES/OUTCOMES

• Partner with communities to plan, implement, and evaluate a community service or research project
• Work in interprofessional teams in a community setting.
• Apply community-based principles while working in a rural community setting
<table>
<thead>
<tr>
<th>TOPIC</th>
<th>FACULTY</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional breastfeeding coalition</td>
<td>Karen Schetzina (medicine); Sherry Freeman (nursing)</td>
<td>Carter County</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Sue Grover (nursing); Randy Byington (rehabilitative health sciences)</td>
<td>African American Community Greeneville</td>
</tr>
<tr>
<td>Cancer (breast)</td>
<td>Jose Velasco (medicine); Toni Bounds (public health)</td>
<td>Hawkins County/Rogersville</td>
</tr>
<tr>
<td>Decrease risky youth behaviors in high risk youth population.</td>
<td>Judy McCook (nursing); Beth Bailey (medicine)</td>
<td>Henry Johnson Alternative School, Johnson City, TN</td>
</tr>
<tr>
<td>Maternal and Child Health</td>
<td>Jim Shine (family medicine), Jim Florence (public health), Patti Vanhook (nursing)</td>
<td>Johnson County</td>
</tr>
<tr>
<td>Occupational Health issues of migrant agricultural workers</td>
<td>Ken Silver (environmental health); Sharon Loury (nursing); Joe Florence (medicine)</td>
<td>Rural Medical Services (RMS), Cocke County and Hamblin County</td>
</tr>
<tr>
<td>Adolescent Mental Health</td>
<td>Amy Swango Wilson (nursing); Bruce Bennard (medicine)</td>
<td>High school students (Unicoi High School)</td>
</tr>
</tbody>
</table>
METHODS

• Individual
  – Desire2Learn (D2L) Learning Modules Individual completion of IRB and HIPAA training
  – written skill-building assignments – discussion board
  – oral presentation of skill-building assignments
  – participation in small group discussions and community interaction

• Collaborative
  – preparation of final written report
  – preparation and presentation of final oral report
  – Community interaction
Modules

Research Course
1. Community Based Participatory Research Module
2. Epidemiology Module
4. Community Assessment Module
5. IRB and HIPAA training http://www.etsu.edu/irb/

Projects Course
1. Developing Needs Statements
2. Health Promotion Planning
3. Evaluation of Health Programs and Services
4. Leadership, Communication and Collaboration
Evaluation Methods: Rural Health Research and Practice

<table>
<thead>
<tr>
<th>Individual evaluation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation (score assigned by section faculty)</td>
<td>20%</td>
</tr>
<tr>
<td>Oral intensive evaluation includes individual presentation of written activity reports; discussion</td>
<td>15%</td>
</tr>
<tr>
<td>Completion of IRB training</td>
<td>15%</td>
</tr>
<tr>
<td>Writing intensive evaluation includes Completion of 4 Skill Building Written Assignments associated with Modules/Readings. These assignments are due at beginning of class to be discussed (written feedback on assignments will be given by section faculty and grades will be averaged equally to account for 15% of the total grade)</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Team evaluation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Written Report (score assigned by section faculty)</td>
<td>25%</td>
</tr>
<tr>
<td>Presentation (score is an averaged summary of all individual faculty scores who evaluate the final presentation)</td>
<td>10%</td>
</tr>
</tbody>
</table>

| TOTAL                                                     | 100%       |
### Evaluation Methods:
#### Rural Community Based Projects

<table>
<thead>
<tr>
<th>Evaluation Method</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty evaluations (participation in class) - Individual grade</td>
<td>20%</td>
</tr>
<tr>
<td>Modules - Individual grade</td>
<td></td>
</tr>
<tr>
<td>Quizzes on each module – 5% each for 4 modules</td>
<td>20%</td>
</tr>
<tr>
<td>Individual Skill-building Assignments - Individual grade</td>
<td>20%</td>
</tr>
<tr>
<td>Written Reports – Group grade</td>
<td></td>
</tr>
<tr>
<td>Final Report</td>
<td>20%</td>
</tr>
<tr>
<td>Presentation – Group grade</td>
<td>20%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>
Unintended consequences of first year reorganization on RPCT scheduling

• Exams schedule the day after RPCT negatively impact RPCT curriculum and willingness of students to actively participate

• Required Human sexuality, COL genetics material forced curriculum change and location of class to campus

• “Heh - more Mountain City, please : )”
Summary of student evaluation reports

<table>
<thead>
<tr>
<th></th>
<th>COL Spring</th>
<th>PRM Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mtn City</td>
<td>Rogersville</td>
</tr>
<tr>
<td>Always or Strongly Agree</td>
<td>65%</td>
<td>100%</td>
</tr>
<tr>
<td>Usually or Agree</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Sometimes or Undecided</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>
Summary of Student Feedback - Strengths

- Community interaction was without a doubt the best part.
- Interaction with M3s was really helpful.
- Real patients. Patient interaction, Direct contact with people.
- Everything
- Faculty: all major strengths of this course! Awesome, fantastic teachers, mentors, and friends
- Learning through experience and working in smaller groups
- Time to discuss issues related to the cases - the professors trying to tie in what we were learning that day to what we were learning in our other classes
- Skin workshop
- Spiritual assessment day (work with Chaplains)
- ACLS Certification
Weaknesses

• Not enough Interprofessional - faculty and students
• Precepting – Not enough; want more clinical time
• Time in Community – Not enough
• More emphasis and feedback on documentation.
• The research portion of the course took away from these aspects of this course. I really didn't learn much from that course.
Rural Primary Care Track
As of March 2011

Total practicing in primary care - 64%
Total in rural practice location - 57%
Total in Tri Cities TN practice (non-rural) - 8%
Total in Tennessee practice - 56%

Tennessee natives - 77%
Select Tennessee residencies - 50%
Tennessee natives, TN residency and TN practice - 30%

Tennessee natives in Tennessee practice - 57%
Tennessee natives in out of state practice - 43%
Out-of-state native in Tennessee practice - 26%
Out-of-state natives in out-of-state practice - 74%
The Interdisciplinary Rural Primary Care Community Partnerships

• Since 1992 enrolled 700 students from Medicine, Nursing, Public Health, Environmental Health, Social Work and Psychology.

• Received the National Rural Health Association “Outstanding Rural Health Program” in 2007.
Plans for Change

• Add more interprofessional experiences
• Add more interprofessional faculty and students
• Seek more Public Health influence
• Enhance resident and upper level student interaction
• Work with main campus to avoid “main campus schedule creep”
Rural training best practices

In Rural
By Rural
About Rural
For Rural
With Partnership
If you want a Rural Health Workforce you need to provide Medical Students and other Health Professional Students with Rural Experiences……

You Can’t Fall in Love with Something You Never Experience!