

LONGITUDES AND LATITUDES:
An Educational Map
That Fits Tight Schedules

Research Family Medicine Residency
Kansas City, MO
Jennifer Kelley, M.D.
Anne Sly, M.D.



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FAMILY PHYSICIANS



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YSICIANS

Objectives

- Perform an assessment of resident and curricular needs to identify topics pertinent to residents medical knowledge and patient care responsibilities
- Visualize a longitudinal curriculum that incorporates ACGME competencies and how it can fit tight training schedules
- Understand the process for creating an online, clinically interactive curriculum and how this can be applied to office, inpatient, obstetric and other rotations.

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Where We Started:



- Office Longitudinal Orientation
- Longitudinal Orientation book
- 30minutes blocked out @ beginning of each clinic, 2 – 3 res/fac (once/week)
- Series of 28 articles/topics that covered medicine topics
- Residents had a check list to keep track of topics reviewed, fac signed off

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Complications

- Carrying around big books
- Residents didn't always have the article with them
- High rate of noncompliance with the program
- Faculty weren't prepared for topic because they didn't have ready access to the articles
- Residents worked with many different faculty, not just 1 or 2 who could monitor their understanding, grasp of the topic, and preparedness
- Different residents needed to cover different topics on same day with 1 faculty
- List got lost, faculty weren't signing off on them



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Needs Assessment

- Researched top 10 dx in FM
- Top 10 dx seen in our clinic, based on billing
- Survey to residents
- Faculty input

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Challenges: Outpatient

1. ACGME requirements
 - Knowledge/skills not covered in rotations (MK)
 - Orthopedic exam
 - Some info not taught in rotations (MK, SBP)
 - Writing good notes
 - Death certificates
 - Handicapped parking permit
 - Start good self study skills to be maintained throughout their careers (PBL)
 - Foster familiarity with evidence-based resources(PBL)
2. Large service requirement
 - high volume patients
 - had to see patients in 30minutes or less
 - end of clinic busy with note completion
3. Patient care that meets recognized standards
4. Individual resident learning needs
 - Residents from varying backgrounds
 - Some residents out of medicine for 1 – 4 years prior to starting residency
 - Orientation at beginning of year is long enough, needed to incorporate more info spread out over time
5. competing resident responsibilities. Residents coming from inpatient, outside rotations, can't get there over lunch, call responsibilities start 5p

Content

- Created an outline of what needed to be covered
 - What did the resident need to know to function in our clinic?
 - What diagnoses were commonly seen in our clinic that all should be comfortable with?
 - What community supports did residents need to know about to help their patients?
 - Information that wasn't well covered in other rotations that was important to the first year resident

The Solution:Modernize!

- Web based:
 - everyone can access all the time
 - link topics to articles available on line
 - Heavy use of AFP journal
 - Use our website for teaching
- Topic becomes the constant
 - everyone covers the same thing each week
 - All outpatient topics

The Solution:Modernize!

- Team based:
 - first years have clinic same afternoon each week
 - same few faculty work with a group of 2 -3 residents throughout the year (team faculty)
 - No one faculty overburdened with this responsibility
 - Residents get continuity with their faculty and still a little variety in teaching/style
 - Team learning fosters comfort level, becomes a discussion rather than a lecture

Addressing the Challenges: Curriculum Design

ACGME	Competency	Milestone	Solution
IV.A.3	Program requirement	regularly scheduled didactic sessions	Weekly take 30min from each clinic session
IV.A.5.b	MK	demonstrate knowledge of broad spectrum of clinical disorders and apply to patient care	-Timing of discussion before clinic -can apply learning right away -Focus on spectrum of outpatient topics
IV.A.5.e	Prof	Resident...must demonstrate a commitment to carrying out professional responsibilities	-attendance -advance prep/read article
IV.A.5.d	ICS	...effective exchange of information and collaboration with patients, their families, and health professionals	-discussion format -group setting/collegial
IV.A.5.c	PBL	residents must demonstrate the ability....to continuously improve pt care based on life-long learning	Linked to online, evidence-based articles AFP journal, DEA website, etc

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Content

- Quarterly based
- 1st quarter: office mechanics
- 2nd quarter: Top 10 FM diagnoses/procedures from our clinic
- 3rd quarter: orthopedics
- 4th quarter: lab, geriatrics, community resources

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Content

- Using framework given, faculty in charge came up with articles
- Outline of material to be covered reviewed at faculty meeting (all have input at this stage)
- Single faculty in charge of the office longitudinal program
 - select articles (this part not decided by committee)
 - keeps articles up to date, constantly review/select new
 - Communicate/work with IT specialist for appearance of site content

Planning the Curriculum

Week	Date	Topic	Article
1	8/1/16	Prepart. Physicals	
2	8/8/16	Script writing	
3	8/15/16	Phone messaging	
4	8/22/16	Billing coding I.	
5	8/29/16	Adult well exam	
6 **Labor Day	9/5/16	WCC/templates	
7	9/12/16	Gyn exam	
8	9/19/16	Death Certificates	
9	9/26/16	DM	

Tour of the web site

- Goppert.org



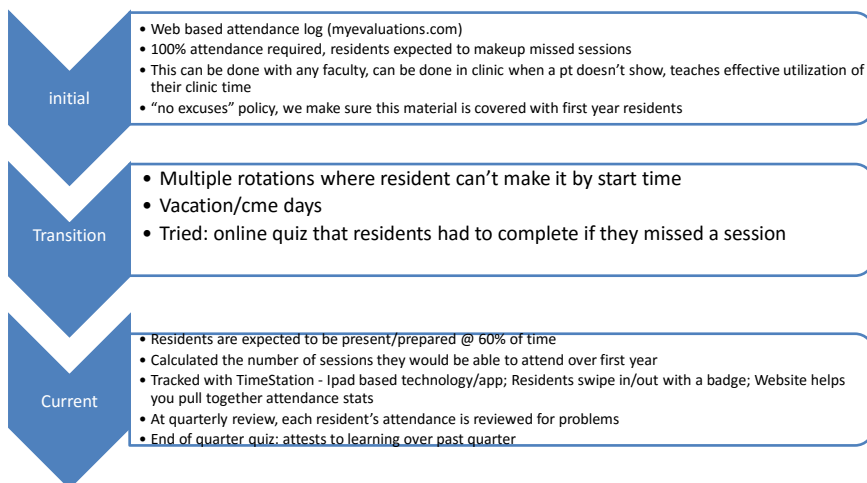
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A Work in Progress

- Professionalism
 - Attendance
 - Starting on time
 - preparation
- Medical Knowledge
 - Out with the old, in with the new
- Systems Based Practice
 - Billing and coding

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A Work in Progress Professionalism: Attendance



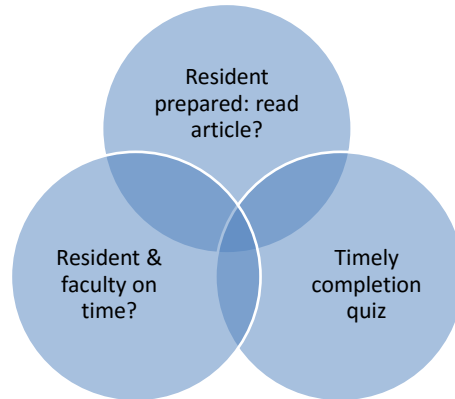
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End of Q quiz

- resident takes online
- use medhub testing function
- resident has to retake test until they get 100%
- open book test
- all questions are from articles reviewed during the quarter

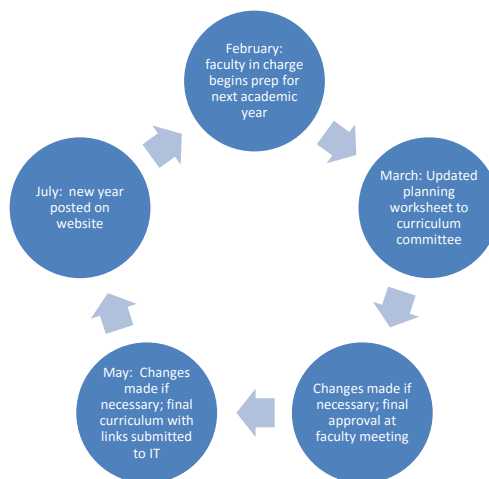
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A Work in Progress: Professionalism

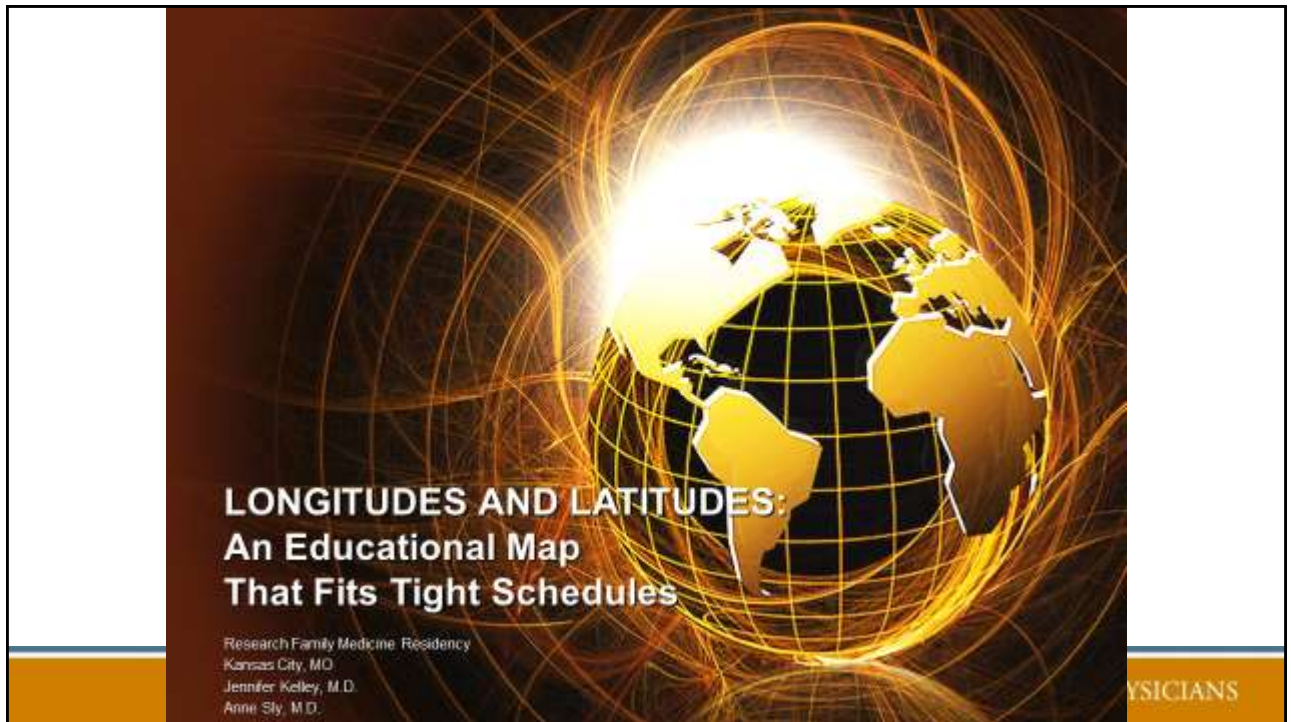


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Work in Progress: MK



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ACGME

Program Requirements

MEDICAL INFORMATION ACCESS:

“Residents must have ready access to specialty-specific and other appropriate reference material in print or electronic format.”

ACGME

Program Requirements

REGULARLY SCHEDULED DIDACTIC SESSIONS:

“The program must provide a regularly scheduled forum for residents to explore and analyze evidence pertinent to the practice of Family Medicine.”

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MILESTONES

FAMILY MEDICAL MILESTONES: (MK)

- Improve medical knowledge through targeted study
- Access and act on personal learning needs
- Synthesize information to make clinical decisions

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NEEDS ASSESSMENT

- Inpatient medicine didactics were an identified need by residents and faculty alike
- Need was identified as a priority during a Strategic Planning Retreat in 2010

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MODELING AFTER SUCCESS

- R-1 Office LONGITUDINAL ORIENTATION

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GOALS

of inpatient medicine “Longitudinal Orientation”

- Structured didactic of “needs to know” adult inpatient medical knowledge
- Integrated “EBM” into daily discussion of patient care
- Provide ongoing orientation of expected standards of care
- Standardized clinical decision making in a large physician practice
- Challenge senior residents to practice teaching skills

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GOALS

linked to the “competencies” or “milestones”

- Topics mirror patient care needs and an established inpatient medicine curriculum (MK and PC)
- Attendance and participation expected (Prof)
- Faculty, resident and specialist roles as instructors (Communication)
- Published topics calendar linked to both “required” and “enrichment” reading resources (PBLI)
- Interactive discussion tailored to resident learner and patient care needs (MK and PC)

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INPATIENT MEDICINE

Didactics

- **CHALLENGES:**

- Faculty resources for preparing and staffing
- Large service requirement
- Patient care that meets recognized standards
- Individual resident learning needs
- Competing residency responsibilities

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THE LEARNERS

- 3-4 R-1's
- 2 R-2's
- 2 R-3's
- 2 Faculty rounders
- Medical students
- Pharmacy students
- Resident applicants (during interviews)

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THE PATIENTS

- >350 bed tertiary urban hospital
- **INPATIENT MEDICINE SERVICE:**
 - Average daily census 36 patients
 - 45% from continuity practice
 - 45% unassigned ED admissions
 - 10% hospitalist services for community FM providers

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WHEN?

6:30-9:30am- resident rounding (R-1, R-2)

7:00-8:00am- night float checkout (faculty, R-3)

9:30-11:30am- sit down rounds (all team)

9:30-11:30am- bedside rounds*

11:45am-12:30pm- luncheon conference

1:00pm- clinic, outreach OB, home visits, NH



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WHEN?

revised

- 6:30-9:15am- resident rounding (R-1, R-2)
- 7:00-8:00am- night float checkout (faculty, R-3)
- **9:15-9:45am- LONGITUDINAL ORIENTATION**
- 9:45-11:30am- sit down rounds (all team)
- 9:45-11:30am- bedside rounds*
- 11:45am-12:30pm- luncheon conference
- 1:00pm- clinic, outreach OB, home visits, NH

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WHERE?

Appropriate/flexible space
for learners

Location convenient to
patient care

Communication support for
patient care

White board and
audiovisual support
....and a BATHROOM



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WHO?

- **LECTURES:**
 - 23% R-3's
 - 54% FM (rounding) faculty
 - 23% specialists (radiology, critical care/pulm)
- Faculty with IT literacy or IT specialist
- Faculty administrative time for content updates
- Administrative support for purchasing material and intellectual property resources

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WHAT?

Medical Knowledge Content Assessment

- Top admission diagnosis
- Society of Hospital Medicine-Core Competencies
[SHM core competencies](#)
- The Joint Commission Quality/Accountability Measures
- Hospital identified programs of excellence (Stroke, STEMI, etc)

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WHAT?

Medical Knowledge Content Resources

- **Individual subscriptions:**
 - American Family Physician
- **Institutional license:**
 - Up-To-Date
 - New England Journal of Medicine
- **Local Intranet resources:**
 - Hospital order sets
 - Resident survival guide
- **Web based resources:**
 - Society of Hospital Medicine Core Competencies
 - Published guidelines



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THE CALENDAR

17 topics per month

- 12 general adult medicine
- 2 radiology
- 2 simulation
- 1 M&M/Peer Review

- <http://www.goppert.org/>

Topics presented Tues/Wed/Thurs/Friday

Topics calendar repeats monthly, rotating to new topics every 4 months

Residents exposed to same topic 2x in 36 months

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PUTTING IT TOGETHER

- <http://WWW.GOPPERT.ORG>



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IMPLEMENTATION

Challenges

- **Faculty leadership and example**
 - Ownership and preparation variable
 - Teaching skills variable
 - Overseeing resident accountability
- **Flexible teaching methods**
 - Learning from “residents at teachers”
- **Interactive/participatory**
 - The “flipped classroom” and accountability for preparation
- **Limited resources to access intellectual property**
- **Firewalls**

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MAINTENANCE

- **Updating Curriculum (PCEC)**
 - annually
- **Updating Medical Knowledge Resources (Faculty champion)**
 - Every 3- 4 months
- **Updating On-Line Calendar and Links (IT)**
 - every 3-4 months

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OPPORTUNITIES

for Longitudinal Curriculums

- Link to MK assessment tools to monitor learning
- Expand to MK needs/resources of “non-core” rotations
- Incorporate procedures with video links for “real time” instruction based on patient care needs
- Upload prepared lectures with instructor notes to standardize “core curricular” topics
- Link to other available internet based resources for longitudinal enrichment in radiology, EKG interpretation, physical diagnosis, communication, etc
- Incorporate longitudinal curriculum for administrative skills (IT, coding and billing, documentation, etc)

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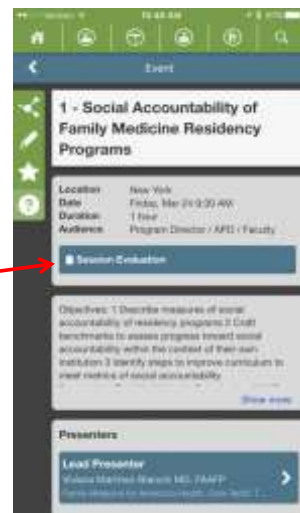
QUESTIONS???



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Please...
Complete the
session evaluation.

Thank you.





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