Creating an “Education-Centered Medical Home”

Northwestern University ECMH Leadership Team:
Dan Evans, Berna Jacobson, Ricky Rosenkranz, Elizabeth Ryan, Pat Garcia, Donna Woods, Jen Bierman, Sharon Unti, Mark Loafman, Bruce Henschen, Alex Friedman, JX Thomas
Understanding chronic care requires...

More than a 4 week rotation...

Yet few current clerkships are designed with continuity in mind. Our students need a continuity clinic!
Continuity is necessary... but insufficient to improve outcomes

Our patients need more than a continuity physician... they need a proactive, trained medical TEAM
The doctors of former generations lament what medicine has become. If they could start over, the surveys tell us, they wouldn’t choose the profession today. They recall a simpler past without insurance-company hassles, government regulations, malpractice litigation, not to mention nurses and doctors bearing tattoos and talking of wanting “balance” in their lives. These are not the cause of their unease, however. They are symptoms of a deeper condition—which is the system we’ve created.

By a system I mean that the diverse people actually work together to direct their specialized capabilities toward common goals for patients. They are coordinated by design. To function this way, however, you must cultivate certain skills which are uncommon in practice and not often taught.
The Northwestern ECMH:

- Education
- Centered
- Medical
- Home

- Northwestern students embedded in existing primary care practices as **change agents**: Students help transform clinics to the PCMH model
- Preceptors transform students into future PCMH docs
What if we could embed students in primary care clinics and have them follow high-risk patients...
What if we trained students to be “health coaches” for those patients who need outreach...
What if our students functioned as mini-PCMH teams at existing clinics...

Objectives:
- Proactive
- Planned Care
- For Activated
- High-Risk Patients
What if students followed their patients for 4 full years and across all transitions of care...
What if preceptors worked for 4 full years with their students – and truly understood their strengths & weaknesses...
E.C.M.H. goals in a nutshell: Embed students in 4-year continuity clinics which are focused on high-risk patients

Our patients need a team to provide...
- Proactive
- Planned care
- For activated patients

ECMH students serve their patients as...
- Advocates
- Case managers
- Personal health coaches
Continuity Panel of ~80 Patients (high-risk pool)

1 Preceptor & 1 Nurse (existing primary care practice)

Team of 16 Students (4 from each class) (~8 students come every-other wk)
Creating a PCMH niche within existing practices
We could measure our curricular reform efforts with student satisfaction surveys and standardized test scores... or

In the ECMH - our educational outcomes could be:

• 97% of student CAD patients on beta-blockers & aspirin?
• Average Hgb A1c for diabetics dropped 1.0% over time?
• 80% patients up to date with cancer screening metrics?
• No racial disparities found in cancer screening rates?
• Mean BMI of student’s patient panel dropped over 4 yrs?
SOUNDS GREAT... BUT IS IT FEASIBLE?
New IT resources to facilitate continuity:

- Ability to track patient progress when not physically at the clinic
- And increasing ease of data-mining to assess quality of care within & across sites
Student continuity survey (5 point Likert scale):

- I look forward to going to my ECMH clinic
- I feel ownership for my ECMH patients
- I am achieving continuity with my ECMH patients
- I am enjoying having continuity with my ECMH patients
- Continuity has affected my perspective on patient care
- I am able to balance my coursework/clerkships with my ECMH patient care responsibilities
What might students learn if they worked as a PCMH team?

ECMH student: Divakar Mithal
ECMH student: Chelsea Carlson
ECMH student: Mitali Parmar

http://youtu.be/HGeJCTq308
Education-Centered Medical Home:
FSM students as health coaches & care coordinators

Patients
continuity of care with a high-risk pool

Preceptors
continuity of supervision

Peers
continuity of teamwork & collaboration

“A team of health professionals, coordinated by a longitudinal physician, working collaboratively to provide high levels of care, access and communication. Care coordination and integration will be woven together with working to improve care quality and safety.”

AAFP, ACP, AAP, AOA 2007 consensus definition of a Patient-Centered Medical Home
Physician Shortages to Worsen Without Increases in Residency Training

The passage of health care reform, while setting in motion long-overdue efforts to insure an additional 32 million Americans, will increase the need for doctors and exacerbate a physician shortage driven by the rapid expansion of the number of Americans over age 65. Increasing graduate medical education by eliminating the 13-year freeze in Medicare’s support for training positions is essential to address the projected shortfall.

Addressing the Problem

The AAMC and our member medical schools and teaching hospitals are committed to creating an environment where primary care delivery and training can flourish. We support:

- Developing new, efficient care models, such as the “medical home,” a new system of care delivery that encourages reliance on a coordinated team of professionals

IS IT FEASIBLE NOT TO EXPAND THE E.C.M.H.?
THANK YOU FOR YOUR ATTENTION QUESTIONS?
Student Experience: Major Themes

First Year Students:
– “Ahead of the curve” in class and clinic
– Chance to see the relevance of the science content they are learning in the morning

Second Year Students:
– Opportunity for direct application of the M2 curriculum (science content, physical exam skills, lifestyle counseling, prevention) all while caring for authentic patients
Student Experience: Major Themes

**Third Year Students:**
– Seeing the importance of outpatient management on health outcomes
– Being called “my doctor” - a powerful driver for professional identity formation

**Fourth Year Students:**
– Return visits to see the impact of diet counseling
  – “I’ve never had an experience like this before”
– “The chance to teach my M1 & M2 teammates and watch them develop was awesome”
# A typical Day in the “ECMH”

<table>
<thead>
<tr>
<th>Time</th>
<th>M1/M4 student pair</th>
<th>M2/M3 student pair</th>
<th>M1/M3 student pair</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:40 pm</td>
<td><strong>Patient A</strong></td>
<td><strong>Patient B</strong></td>
<td><strong>Patient C</strong></td>
</tr>
<tr>
<td></td>
<td>41 y/o female</td>
<td>56 y/o male</td>
<td>9 m/o female</td>
</tr>
<tr>
<td></td>
<td>Leg ulcer</td>
<td>Chronic HTN, new leg swelling</td>
<td>Well child care</td>
</tr>
<tr>
<td>2:40 pm</td>
<td><strong>Patient D</strong></td>
<td><strong>Patient E</strong></td>
<td><strong>Patient F</strong></td>
</tr>
<tr>
<td></td>
<td>39 y/o female</td>
<td>15 y/o male</td>
<td>55 y/o male</td>
</tr>
<tr>
<td></td>
<td>Fibroids and anemia</td>
<td>Knee pain</td>
<td>DM2 check-up</td>
</tr>
<tr>
<td>3:40 pm</td>
<td><strong>Patient G</strong></td>
<td><strong>Patient H</strong></td>
<td><strong>Patient I</strong></td>
</tr>
<tr>
<td></td>
<td>32 y/o female</td>
<td>25 y/o female</td>
<td>8 y/o male</td>
</tr>
<tr>
<td></td>
<td>Uncontrolled IDDM</td>
<td>Hypocalcemic seizures</td>
<td>Blood in stools</td>
</tr>
</tbody>
</table>

Second year ECMH faculty averaging ~ 10 patients/session
## One Student-Patient-Year in the ECMH

<table>
<thead>
<tr>
<th>Month</th>
<th>Clerkship</th>
<th>Setting</th>
<th>Clinical Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>Medicine</td>
<td>Emergency Department</td>
<td>62F w/ CAD, COPD, DM (neuropathy, non-healing foot ulcer), HTN, HL, chronic pain, nicotine dependence – comes in with sepsis</td>
</tr>
<tr>
<td>November</td>
<td>Medicine</td>
<td>ECMH Clinic</td>
<td>Insulin regimen, dietary habits, wound care, Adjustment d/o, more discussion tobacco use</td>
</tr>
<tr>
<td>December</td>
<td>Medicine</td>
<td>Medicine Ward (x10 days)</td>
<td>Another admission for sepsis due to non-healing foot ulcer, Adjustment d/o</td>
</tr>
<tr>
<td>January</td>
<td>Neurology</td>
<td>MICU (x35 days)</td>
<td>Chest pain, sepsis, free flap closure foot wound, respiratory distress, Afib/RVR, MI, delirium, POA clarification, advance directives</td>
</tr>
<tr>
<td>February</td>
<td>Psychiatry</td>
<td>ECMH Clinic</td>
<td>Hospital follow-up visit – discussed CAD, CHF, HTN, DM, wound care, depression, pain mgmt</td>
</tr>
<tr>
<td>March</td>
<td>Surgery</td>
<td>Echo result</td>
<td>Persistent low EF 23% 2 months after NSTEMI</td>
</tr>
<tr>
<td>April</td>
<td>Surgery</td>
<td>Cardiac Cath Lab</td>
<td>Dx: Ischemic cardiomyopathy, moderate diffuse multi-vessel CAD, medical mgmt of CHF</td>
</tr>
<tr>
<td>May</td>
<td>Surgery</td>
<td>ECMH Clinic visit</td>
<td>CHF, CAD, HTN, DM, neuropathic hand pain, alopecia, insomnia, depression</td>
</tr>
<tr>
<td>August</td>
<td>Elective</td>
<td>Inpatient medicine</td>
<td>After 2nd opinions - patient agrees to undergo below knee amputation</td>
</tr>
<tr>
<td>September</td>
<td>Elective</td>
<td>Inpatient RIC</td>
<td>Seen at rehab for therapy after BKA, stopped coumadin (fall risk; holter with resolved afib)</td>
</tr>
</tbody>
</table>
ECMH versus PCMH

• The ECMH is an educational model that ASPIRES to deliver care according to PCMH principles. All clinics will adopt the 7 pillars of the PCMH chronic care model...

• However, we recognize that our clinics do not YET meet the definition of a PCMH according to NCQA standards
Benefits of Implementing the Primary Care Patient-Centered Medical Home: A REVIEW OF COST & QUALITY RESULTS, 2012

Prepared by:
Marci Nielsen, PhD, MPH
Barbara Langner, PhD
Carla Zema, PhD
Tara Hacker, MPH
Paul Grundy, MD, MPH
Purpose: Test the feasibility of a 4-year, longitudinal clerkship based on principles of the Patient-Centered Medical Home (PCMH).1

Methods: We embedded teams of 16 students (4 students per class) in 4 existing faculty practices and matched each team with a panel of “high risk patients.” We introduced students to their continuity patients as “health coaches who would work as a team to improve their health over the next 1-4 years.” Clinical education occurred via traditional clinic preceptor model- but was further augmented by the upperclass (M3 & M4) students directly observing and coaching the underclass (M1 & M2) students. This peer-to-peer teaching was accomplished by scheduling patients with an upper/lower level “student pair”. We adopted the AAFP/AAP/ACP consensus curriculum for educating students in the PCMH environment2, and we delivered content with assigned readings reinforced by a monthly “ECMH Grand Rounds” conference. Student attitudes and reflections were collected using a monthly web-survey.

Results: 56 student volunteers have participated for 6 months. To date- each student has attended an average of 9-10 clinics, they have recruited 230 patients overall, and they have participated in 6 grand rounds conferences. 97%, 93%, 86% and 77% of students respectively agreed/strongly agreed with the statements- “I look forward to going to my clinic”, “I am enjoying having continuity with my patients”, “continuity has affected my perspective on patient care”, and “I am achieving continuity with my patients.” Qualitatively- students mentioned “continuity” and “peer teaching” as the two most positive aspects of the pilot. Preceptors have been uniformly positive of their experience.

Conclusion: Pilot data strongly suggests that an Education-Centered Medical Home (ECMH) is feasible to develop, and is highly rated by students across all 4 levels of training. Work is ongoing to establish the impact on student learning outcomes, patient outcomes, and faculty productivity.

References:
2) http://www.acponline.org/running_practice/pcmh/understanding/educ-joint-principles.pdf